governmentattic.org
"Rummaging in the government's attic"

Description of document:	Reports produced for Congress by the Department of the Navy not posted on the Navy public websites, 2006-2009
Requested date:	16-November-2009
Released date:	12-March-2010
Posted date:	07-January-2013
Source of document:	Chief of Naval Operations (N09B10) 2000 Navy Pentagon Washington, DC 20350-2000 Fax: 202-685-6580

The governmentattic.org web site ("the site") is noncommercial and free to the public. The site and materials made available on the site, such as this file, are for reference only. The governmentattic.org web site and its principals have made every effort to make this information as complete and as accurate as possible, however, there may be mistakes and omissions, both typographical and in content. The governmentattic.org web site and its principals shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to have been caused, directly or indirectly, by the information provided on the governmentattic.org web site or in this file. The public records published on the site were obtained from government agencies using proper legal channels. Each document is identified as to the source. Any concerns about the contents of the site should be directed to the agency originating the document in question. GovernmentAttic.org is not responsible for the contents of documents published on the website.

-- Web site design Copyright 2007 governmentattic.org --

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

IN REPLY REFER TO

12 March 2010

SUBJECT: YOUR FREEDOM OF INFORMATION CASE DON 2010F0294

This responds to your Freedom of Information Act (FOIA) request dated 16 November 2009. You requested each report produced for Congress by the Department of the Navy during the past three years, and which are not posted on the Navy public internet websites. Your request letter was received 3 December 2009 by the Navy FOIA office and was assigned Case File Number DON 2010F0294. Your request was received by this office, via email 25 February 2010.

A search of our records produced the enclosed CD-ROM which is responsive to your request. It is released to you in its entirety. The fee for processing your request is $30. You will be contacted by the Department of the Navy Freedom of Information Act Policy Branch via separate correspondence to arrange payment.

If you have any questions concerning this matter, please do not hesitate to contact Lieutenant Commander Terry McNamara at (703)695-5753.

Sincerely,

S. GONZALES
Director, Department of the Navy
Program Information Center

Enclosure:
1 CD-ROM containing Navy reports to Congress 2007-2009

2007

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JUL 10 2006

The Honorable John Warner
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2007 House Armed Services Committee Report 109-452 directed that the Secretary of the Navy revalidate the cost estimates for the CVN 21, for the ships currently programmed in the LHA Replacement program, and for the eight ships of the SAN ANTONIO Class that follow the lead ship. The committee further directed that the revalidated cost estimates be submitted for review and approval by the Under Secretary of Defense for Acquisition, Technology, & Logistics (USD (AT&L)). Finally the committee directed that no later than July 1, 2006, the Secretary of the Navy submit a report to the congressional defense committees containing the revalidated cost estimates for these ship classes including certification by the Secretary that all known and anticipated major elements of cost have been included in the estimate. I am responding for Secretary Winter.

In February 2004, the Navy issued a policy that directed the inclusion of realistic pricing for shipbuilding inflation. In prior years, shipbuilding estimates utilized OSD/OMB indices for projecting inflation costs. Use of the OSD/OMB indices had the effect of under-predicting the inflation costs experienced in our shipbuilding programs. This shift in policy was subsequently reflected in the Fiscal Year 2006 President's Budget.

The Navy has also implemented a policy on program change orders that allows Program Managers the authority to approve engineering and non-engineering change proposals that reduce or do not impact contract cost, but reserves shipbuilding program funds for only those change orders required for safety, contractual defects, unavailable contractor furnished equipment, documented testing and trial deficiencies, and statutory/regulatory changes. Further, in recognition of the need to manage requirement changes/growth, the Navy has instituted capabilities and requirements review processes. The Naval Capabilities Board and Resources and Requirements Review Boards are chaired at the highest levels of Navy Leadership with the objective to minimize requirements changes to shipbuilding programs. This will provide a stable requirements baseline upon which credible estimates can be developed and maintained.

Specific to the CVN 21 program, the revised cost estimate as reflected in the Fiscal Year 2006 President's Budget reflected the above change in inflation prediction policy. The CVN 21 cost estimate that supported the Milestone B (MS B) decision in April 2004

included realistic inflation predictions. These predictions were based on historical data, shipbuilder forward pricing projections, and projections of inflation in the shipbuilding industry for material. Additionally, this estimate was based on a detailed review of the ship design covering all factors affecting the price of the ship (i.e., inflation, labor and overhead projections, material, government furnished equipment, shipyard workload, ship design maturity, etc.). In accordance with the CVN 21 MS B Acquisition Decision Memorandum, the Navy is subject to follow-on Defense Acquisition Board (DAB) reviews prior to award of the construction contract.

The LHA Replacement (LHA(R)) program completed both a Navy and OSD Cost Analysis and Improvement Group cost review as part of the January 2006 MS B review. The MS B Acquisition Decision Memorandum directed the Navy to fund to the Service cost position for the LHA 6, adjusted to include additional funding for material escalation and other changes as reflected in the Fiscal Year 2007 President's Budget request.

The Fiscal Year 2007 President's Budget request for the LPD program consists of LPD 18-21 under a Cost Plus Incentive Fee contract and the recently awarded Fixed Price Incentive Fee contract for LPD 22-25. The Fiscal Year 2007 President's Budget request included additional funding over the Fiscal Year 2006 President's Budget request for the LPD 19, 20, and 23 as a result of incorporating lead ship lessons learned and to offset the increased costs of these ships due to a reduction from 12 to nine in the total number of LPD Class ships to be constructed. Finally, as the LPD program is currently the only Navy program building ships at the Northrop Grumman Ship Systems Avondale Facility, there is risk in the Navy's ability to predict future overheads and rates associated with work at that facility. Imposing cost caps without recognition of the potential need for additional funds to address these items is not an effective method of controlling costs and may in fact result in further construction delays and additional costs.

The Navy and USD AT&L have revalidated the FY 2007 President's Budget request cost estimates for the LPD 18–25, LHA 6, and CVN 78. The OSD CAIG has not yet conducted formal cost reviews for the CVN 21 Class follow ships.

$M	*PB07 End Cost*	*Known Hurricane Katrina Impact*	*Post Delivery & Outfitting*	*Total*
LPD 18	$1,111.3	$145.0	$51.3	$1,307.6
LPD 19	$1,138.2	$156.0	$79.3	$1,373.5
LPD 20	$1,004.6	$165.0	$48.1	$1,217.7
LPD 21	$1,137.3	$151.0	$48.4	$1,336.7
LPD 22	$1,246.7	$157.0	$51.3	$1,455.0
LPD 23	$1,191.2	$171.0	$56.1	$1,418.3
LPD 24	$1,333.0	$153.0	$60.0	$1,546.0
LPD 25	$1,804.8	$0.0	$61.7	$1,866.5
CVN 78	$10,461.1	$0.0	$212.1	$10,673.2
CVN 79	$9,583.0	$0.0	$231.4	$9,814.4
CVN 80	$10,807.0	$0.0	$270.9	$11,077.9
LHA 6	$2,813.6	$97.0	$82.3	$2,992.9

Based upon the above positions, the Navy assesses that all known and anticipated major elements of cost such as contract values, current projected forward price rate agreements, labor and material inflation, and workload projections, as well as the lessons learned impact from the lead ship have been included in the Navy's cost estimates for these ships as reflected in the Fiscal Year 2007 President's Budget request. The Navy and Northrop Grumman Corporation continue to work through the impacts of Hurricane Katrina. Given the uncertainties associated with the final impact of Hurricane Katrina on the Shipbuilding industry, it could take several years to realize the complete impact.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Hunter, Stevens, and Young.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Carl Levin
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JUL 10 2006

The Honorable Duncan L. Hunter
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2007 House Armed Services Committee Report 109-452 directed that the Secretary of the Navy revalidate the cost estimates for the CVN 21, for the ships currently programmed in the LHA Replacement program, and for the eight ships of the SAN ANTONIO Class that follow the lead ship. The committee further directed that the revalidated cost estimates be submitted for review and approval by the Under Secretary of Defense for Acquisition, Technology, & Logistics (USD (AT&L)). Finally the committee directed that no later than July 1, 2006, the Secretary of the Navy submit a report to the congressional defense committees containing the revalidated cost estimates for these ship classes including certification by the Secretary that all known and anticipated major elements of cost have been included in the estimate. I am responding for Secretary Winter.

In February 2004, the Navy issued a policy that directed the inclusion of realistic pricing for shipbuilding inflation. In prior years, shipbuilding estimates utilized OSD/OMB indices for projecting inflation costs. Use of the OSD/OMB indices had the effect of under-predicting the inflation costs experienced in our shipbuilding programs. This shift in policy was subsequently reflected in the Fiscal Year 2006 President's Budget.

The Navy has also implemented a policy on program change orders that allows Program Managers the authority to approve engineering and non-engineering change proposals that reduce or do not impact contract cost, but reserves shipbuilding program funds for only those change orders required for safety, contractual defects, unavailable contractor furnished equipment, documented testing and trial deficiencies, and statutory/regulatory changes. Further, in recognition of the need to manage requirement changes/growth, the Navy has instituted capabilities and requirements review processes. The Naval Capabilities Board and Resources and Requirements Review Boards are chaired at the highest levels of Navy Leadership with the objective to minimize requirements changes to shipbuilding programs. This will provide a stable requirements baseline upon which credible estimates can be developed and maintained.

Specific to the CVN 21 program, the revised cost estimate as reflected in the Fiscal Year 2006 President's Budget reflected the above change in inflation prediction policy. The CVN 21 cost estimate that supported the Milestone B (MS B) decision in April 2004

included realistic inflation predictions. These predictions were based on historical data, shipbuilder forward pricing projections, and projections of inflation in the shipbuilding industry for material. Additionally, this estimate was based on a detailed review of the ship design covering all factors affecting the price of the ship (i.e., inflation, labor and overhead projections, material, government furnished equipment, shipyard workload, ship design maturity, etc.). In accordance with the CVN 21 MS B Acquisition Decision Memorandum, the Navy is subject to follow-on Defense Acquisition Board (DAB) reviews prior to award of the construction contract.

The LHA Replacement (LHA(R)) program completed both a Navy and OSD Cost Analysis and Improvement Group cost review as part of the January 2006 MS B review. The MS B Acquisition Decision Memorandum directed the Navy to fund to the Service cost position for the LHA 6, adjusted to include additional funding for material escalation and other changes as reflected in the Fiscal Year 2007 President's Budget request.

The Fiscal Year 2007 President's Budget request for the LPD program consists of LPD 18-21 under a Cost Plus Incentive Fee contract and the recently awarded Fixed Price Incentive Fee contract for LPD 22-25. The Fiscal Year 2007 President's Budget request included additional funding over the Fiscal Year 2006 President's Budget request for the LPD 19, 20, and 23 as a result of incorporating lead ship lessons learned and to offset the increased costs of these ships due to a reduction from 12 to nine in the total number of LPD Class ships to be constructed. Finally, as the LPD program is currently the only Navy program building ships at the Northrop Grumman Ship Systems Avondale Facility, there is risk in the Navy's ability to predict future overheads and rates associated with work at that facility. Imposing cost caps without recognition of the potential need for additional funds to address these items is not an effective method of controlling costs and may in fact result in further construction delays and additional costs.

The Navy and USD AT&L have revalidated the FY 2007 President's Budget request cost estimates for the LPD 18–25, LHA 6, and CVN 78. The OSD CAIG has not yet conducted formal cost reviews for the CVN 21 Class follow ships.

$M	*PB07 End Cost*	*Known Hurricane Katrina Impact*	*Post Delivery & Outfitting*	*Total*
LPD 18	$1,111.3	$145.0	$51.3	$1,307.6
LPD 19	$1,138.2	$156.0	$79.3	$1,373.5
LPD 20	$1,004.6	$165.0	$48.1	$1,217.7
LPD 21	$1,137.3	$151.0	$48.4	$1,336.7
LPD 22	$1,246.7	$157.0	$51.3	$1,455.0
LPD 23	$1,191.2	$171.0	$56.1	$1,418.3
LPD 24	$1,333.0	$153.0	$60.0	$1,546.0
LPD 25	$1,804.8	$0.0	$61.7	$1,866.5
CVN 78	$10,461.1	$0.0	$212.1	$10,673.2
CVN 79	$9,583.0	$0.0	$231.4	$9,814.4
CVN 80	$10,807.0	$0.0	$270.9	$11,077.9
LHA 6	$2,813.6	$97.0	$82.3	$2,992.9

Based upon the above positions, the Navy assesses that all known and anticipated major elements of cost such as contract values, current projected forward price rate agreements, labor and material inflation, and workload projections, as well as the lessons learned impact from the lead ship have been included in the Navy's cost estimates for these ships as reflected in the Fiscal Year 2007 President's Budget request. The Navy and Northrop Grumman Corporation continue to work through the impacts of Hurricane Katrina. Given the uncertainties associated with the final impact of Hurricane Katrina on the Shipbuilding industry, it could take several years to realize the complete impact.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Warner, Stevens, and Young.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Ike Skelton
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JUL 10 2006

The Honorable Ted Stevens
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2007 House Armed Services Committee Report 109-452 directed that the Secretary of the Navy revalidate the cost estimates for the CVN 21, for the ships currently programmed in the LHA Replacement program, and for the eight ships of the SAN ANTONIO Class that follow the lead ship. The committee further directed that the revalidated cost estimates be submitted for review and approval by the Under Secretary of Defense for Acquisition, Technology, & Logistics (USD (AT&L)). Finally the committee directed that no later than July 1, 2006, the Secretary of the Navy submit a report to the congressional defense committees containing the revalidated cost estimates for these ship classes including certification by the Secretary that all known and anticipated major elements of cost have been included in the estimate. I am responding for Secretary Winter.

In February 2004, the Navy issued a policy that directed the inclusion of realistic pricing for shipbuilding inflation. In prior years, shipbuilding estimates utilized OSD/OMB indices for projecting inflation costs. Use of the OSD/OMB indices had the effect of under-predicting the inflation costs experienced in our shipbuilding programs. This shift in policy was subsequently reflected in the Fiscal Year 2006 President's Budget.

The Navy has also implemented a policy on program change orders that allows Program Managers the authority to approve engineering and non-engineering change proposals that reduce or do not impact contract cost, but reserves shipbuilding program funds for only those change orders required for safety, contractual defects, unavailable contractor furnished equipment, documented testing and trial deficiencies, and statutory/regulatory changes. Further, in recognition of the need to manage requirement changes/growth, the Navy has instituted capabilities and requirements review processes. The Naval Capabilities Board and Resources and Requirements Review Boards are chaired at the highest levels of Navy Leadership with the objective to minimize requirements changes to shipbuilding programs. This will provide a stable requirements baseline upon which credible estimates can be developed and maintained.

Specific to the CVN 21 program, the revised cost estimate as reflected in the Fiscal Year 2006 President's Budget reflected the above change in inflation prediction policy. The CVN 21 cost estimate that supported the Milestone B (MS B) decision in April 2004

included realistic inflation predictions. These predictions were based on historical data, shipbuilder forward pricing projections, and projections of inflation in the shipbuilding industry for material. Additionally, this estimate was based on a detailed review of the ship design covering all factors affecting the price of the ship (i.e., inflation, labor and overhead projections, material, government furnished equipment, shipyard workload, ship design maturity, etc.). In accordance with the CVN 21 MS B Acquisition Decision Memorandum, the Navy is subject to follow-on Defense Acquisition Board (DAB) reviews prior to award of the construction contract.

The LHA Replacement (LHA(R)) program completed both a Navy and OSD Cost Analysis and Improvement Group cost review as part of the January 2006 MS B review. The MS B Acquisition Decision Memorandum directed the Navy to fund to the Service cost position for the LHA 6, adjusted to include additional funding for material escalation and other changes as reflected in the Fiscal Year 2007 President's Budget request.

The Fiscal Year 2007 President's Budget request for the LPD program consists of LPD 18-21 under a Cost Plus Incentive Fee contract and the recently awarded Fixed Price Incentive Fee contract for LPD 22-25. The Fiscal Year 2007 President's Budget request included additional funding over the Fiscal Year 2006 President's Budget request for the LPD 19, 20, and 23 as a result of incorporating lead ship lessons learned and to offset the increased costs of these ships due to a reduction from 12 to nine in the total number of LPD Class ships to be constructed. Finally, as the LPD program is currently the only Navy program building ships at the Northrop Grumman Ship Systems Avondale Facility, there is risk in the Navy's ability to predict future overheads and rates associated with work at that facility. Imposing cost caps without recognition of the potential need for additional funds to address these items is not an effective method of controlling costs and may in fact result in further construction delays and additional costs.

The Navy and USD AT&L have revalidated the FY 2007 President's Budget request cost estimates for the LPD 18–25, LHA 6, and CVN 78. The OSD CAIG has not yet conducted formal cost reviews for the CVN 21 Class follow ships.

$M	*PB07 End Cost*	*Known Hurricane Katrina Impact*	*Post Delivery & Outfitting*	*Total*
LPD 18	$1,111.3	$145.0	$51.3	$1,307.6
LPD 19	$1,138.2	$156.0	$79.3	$1,373.5
LPD 20	$1,004.6	$165.0	$48.1	$1,217.7
LPD 21	$1,137.3	$151.0	$48.4	$1,336.7
LPD 22	$1,246.7	$157.0	$51.3	$1,455.0
LPD 23	$1,191.2	$171.0	$56.1	$1,418.3
LPD 24	$1,333.0	$153.0	$60.0	$1,546.0
LPD 25	$1,804.8	$0.0	$61.7	$1,866.5
CVN 78	$10,461.1	$0.0	$212.1	$10,673.2
CVN 79	$9,583.0	$0.0	$231.4	$9,814.4
CVN 80	$10,807.0	$0.0	$270.9	$11,077.9
LHA 6	$2,813.6	$97.0	$82.3	$2,992.9

Based upon the above positions, the Navy assesses that all known and anticipated major elements of cost such as contract values, current projected forward price rate agreements, labor and material inflation, and workload projections, as well as the lessons learned impact from the lead ship have been included in the Navy's cost estimates for these ships as reflected in the Fiscal Year 2007 President's Budget request. The Navy and Northrop Grumman Corporation continue to work through the impacts of Hurricane Katrina. Given the uncertainties associated with the final impact of Hurricane Katrina on the Shipbuilding industry, it could take several years to realize the complete impact.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Hunter, Warner, and Young.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Daniel K. Inouye
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JUL 10 2006

The Honorable C. W. Bill Young
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2007 House Armed Services Committee Report 109-452 directed that the Secretary of the Navy revalidate the cost estimates for the CVN 21, for the ships currently programmed in the LHA Replacement program, and for the eight ships of the SAN ANTONIO Class that follow the lead ship. The committee further directed that the revalidated cost estimates be submitted for review and approval by the Under Secretary of Defense for Acquisition, Technology, & Logistics (USD (AT&L)). Finally the committee directed that no later than July 1, 2006, the Secretary of the Navy submit a report to the congressional defense committees containing the revalidated cost estimates for these ship classes including certification by the Secretary that all known and anticipated major elements of cost have been included in the estimate. I am responding for Secretary Winter.

In February 2004, the Navy issued a policy that directed the inclusion of realistic pricing for shipbuilding inflation. In prior years, shipbuilding estimates utilized OSD/OMB indices for projecting inflation costs. Use of the OSD/OMB indices had the effect of under-predicting the inflation costs experienced in our shipbuilding programs. This shift in policy was subsequently reflected in the Fiscal Year 2006 President's Budget.

The Navy has also implemented a policy on program change orders that allows Program Managers the authority to approve engineering and non-engineering change proposals that reduce or do not impact contract cost, but reserves shipbuilding program funds for only those change orders required for safety, contractual defects, unavailable contractor furnished equipment, documented testing and trial deficiencies, and statutory/regulatory changes. Further, in recognition of the need to manage requirement changes/growth, the Navy has instituted capabilities and requirements review processes. The Naval Capabilities Board and Resources and Requirements Review Boards are chaired at the highest levels of Navy Leadership with the objective to minimize requirements changes to shipbuilding programs. This will provide a stable requirements baseline upon which credible estimates can be developed and maintained.

Specific to the CVN 21 program, the revised cost estimate as reflected in the Fiscal Year 2006 President's Budget reflected the above change in inflation prediction policy. The CVN 21 cost estimate that supported the Milestone B (MS B) decision in April 2004

included realistic inflation predictions. These predictions were based on historical data, shipbuilder forward pricing projections, and projections of inflation in the shipbuilding industry for material. Additionally, this estimate was based on a detailed review of the ship design covering all factors affecting the price of the ship (i.e., inflation, labor and overhead projections, material, government furnished equipment, shipyard workload, ship design maturity, etc.). In accordance with the CVN 21 MS B Acquisition Decision Memorandum, the Navy is subject to follow-on Defense Acquisition Board (DAB) reviews prior to award of the construction contract.

The LHA Replacement (LHA(R)) program completed both a Navy and OSD Cost Analysis and Improvement Group cost review as part of the January 2006 MS B review. The MS B Acquisition Decision Memorandum directed the Navy to fund to the Service cost position for the LHA 6, adjusted to include additional funding for material escalation and other changes as reflected in the Fiscal Year 2007 President's Budget request.

The Fiscal Year 2007 President's Budget request for the LPD program consists of LPD 18-21 under a Cost Plus Incentive Fee contract and the recently awarded Fixed Price Incentive Fee contract for LPD 22-25. The Fiscal Year 2007 President's Budget request included additional funding over the Fiscal Year 2006 President's Budget request for the LPD 19, 20, and 23 as a result of incorporating lead ship lessons learned and to offset the increased costs of these ships due to a reduction from 12 to nine in the total number of LPD Class ships to be constructed. Finally, as the LPD program is currently the only Navy program building ships at the Northrop Grumman Ship Systems Avondale Facility, there is risk in the Navy's ability to predict future overheads and rates associated with work at that facility. Imposing cost caps without recognition of the potential need for additional funds to address these items is not an effective method of controlling costs and may in fact result in further construction delays and additional costs.

The Navy and USD AT&L have revalidated the FY 2007 President's Budget request cost estimates for the LPD 18–25, LHA 6, and CVN 78. The OSD CAIG has not yet conducted formal cost reviews for the CVN 21 Class follow ships.

$M	*PB07 End Cost*	*Known Hurricane Katrina Impact*	*Post Delivery & Outfitting*	*Total*
LPD 18	$1,111.3	$145.0	$51.3	$1,307.6
LPD 19	$1,138.2	$156.0	$79.3	$1,373.5
LPD 20	$1,004.6	$165.0	$48.1	$1,217.7
LPD 21	$1,137.3	$151.0	$48.4	$1,336.7
LPD 22	$1,246.7	$157.0	$51.3	$1,455.0
LPD 23	$1,191.2	$171.0	$56.1	$1,418.3
LPD 24	$1,333.0	$153.0	$60.0	$1,546.0
LPD 25	$1,804.8	$0.0	$61.7	$1,866.5
CVN 78	$10,461.1	$0.0	$212.1	$10,673.2
CVN 79	$9,583.0	$0.0	$231.4	$9,814.4
CVN 80	$10,807.0	$0.0	$270.9	$11,077.9
LHA 6	$2,813.6	$97.0	$82.3	$2,992.9

Based upon the above positions, the Navy assesses that all known and anticipated major elements of cost such as contract values, current projected forward price rate agreements, labor and material inflation, and workload projections, as well as the lessons learned impact from the lead ship have been included in the Navy's cost estimates for these ships as reflected in the Fiscal Year 2007 President's Budget request. The Navy and Northrop Grumman Corporation continue to work through the impacts of Hurricane Katrina. Given the uncertainties associated with the final impact of Hurricane Katrina on the Shipbuilding industry, it could take several years to realize the complete impact.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Hunter, Warner, and Stevens.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable John P. Murtha
Ranking Minority Member

REPORT ON

NAVY'S FLEET RESPONSE PLAN

2000 Navy Pentagon
Code: N430D
Washington, DC 20350-2000

December 2006

REPORT ON NAVY'S FLEET RESPONSE PLAN IN COMPLIANCE WITH SECTION 341 OF FISCAL YEAR 2007 NATIONAL DEFENSE AUTHORIZATION ACT

Requirement:

Not later than December 1, 2006, the Secretary of the Navy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the program of the Navy referred to as the Fleet Response Plan. The report shall include the following:

(1) A directive that provides guidance for the conduct of the Plan and standardizes terms and definitions.

(2) Performance measures for evaluation of the Plan.

(3) Costs and resources needed to achieve objectives of the Plan, including any incremental effect on the Navy Operation and Maintenance budget.

(4) Operational tests, exercises, war games, experiments, and deployments used to test performance.

(5) A collection and synthesis of lessons learned from the implementation of the Plan as of the date on which the report is submitted.

(6) Evaluation of each of the following with respect to each ship participating in the Plan:

(A) Combat readiness, including training requirements.

(B) Ship material condition, including trending data for mission degrading casualty reports rated as C3 or C4.

(C) Professional development training requirements accomplished during a deployment and at home station.

(D) Crew retention statistics.

(7) Any proposed changes to the Surface Force Training Manual.

(8) The amount of funding required to effectively implement the operation and maintenance requirements of the Plan by ship class.

(9) Any recommendations of the Secretary of the Navy with respect to expanding the Plan to include Expeditionary Strike Groups.

In addition, the Secretary of the Navy may not expand the implementation of the Fleet Response Plan beyond the Carrier Strike Groups until the date that is six months after the date on which the Secretary of the Navy submits the report to Congress.

Executive Summary:

The Fleet Response Plan is the operational framework for Carrier Strike Groups that capitalizes on the Navy's investments in its readiness accounts. It leverages its force provider capabilities to meet Combatant Commander force requirements for traditional roles, such as forward presence, while providing an available surge capability for emerging missions. It is a deliberate process that ensures continuous availability of trained, ready Navy forces. It does not change training requirements, operational capabilities, or amount of maintenance, nor has it impacted training accomplishment or reenlistment rates; overall, its implementation has been cost-neutral to the Operations and Maintenance Budget.

Expanding the Fleet Response Plan beyond Carrier Strike Groups to all deployable Navy Forces will enable the Navy to provide a more agile, flexible, and scalable surge capability, enabling quicker response to unexpected threats, humanitarian disasters, and contingency operations.

Discussion:

The responses to the questions found in the Fiscal Year (FY) 2007 National Defense Authorization Act, Section 341, are provided below.

1. **Fleet Response Plan directive.**

The Navy's existing directive that sets policy and establishes responsibility for the execution of the Fleet Response Plan, Chief of Naval Operations (OPNAV) Instruction 3000.15, dated August 31, 2006, is included as enclosure 1. This instruction states that the Fleet Response Plan is applicable to all active and reserve deployable units. As required by Section 341, the Secretary of the Navy will not expand implementation of Fleet Response Plan beyond Carrier Strike Groups (CSGs) until six months after the submission of this report.

2. **Performance measures for evaluation of the Fleet Response Plan.**

The Navy is currently using two measures of performance for the Fleet Response Plan and is continuing to develop and refine additional ways to fully measure the effects of the Fleet Response Plan's impacts. These measures of performance include: a. the ability to meet the adjudicated Combatant Commanders' requests for forces; b. the availability of surge ready forces to meet Operational Plan requirements while meeting Personnel Tempo of Operations (PERSTEMPO) limits specified by the CNO.

a. Combatant Commander's Request for Forces. The Navy is meeting an increasing and more complex demand for forces. From the late 1990's through 2003, the Navy provided Carrier Strike Groups to Combatant Commanders allocated on a yearly average presence level in accordance with the Secretary of Defense's 1998 Global Naval Forces Presence Policy. In 2005, the demand for Carrier Strike Groups increased above the traditional steady-state average. The requirement also grew in complexity, with more stringently defined times, durations and force

levels. Having the Fleet Response Plan construct in place has allowed the Navy to meet this complex demand signal.

b. Surge Force Availability. Since the implementation of the Fleet Response Plan, the availability of Carrier Strike Groups ready to deploy (as referred to under the Fleet Response Plan definitions as "Major Combat Operations (MCO) Surge Ready" and "MCO Ready") has nearly doubled. Moreover, the readiness of all Carrier Strike Groups is closely tracked, with their readiness ratings reported weekly to the Chief of Naval Operations (CNO).

c. The PERSTEMPO Program is a deliberate process to balance support of national objectives with reasonable operating conditions for our Sailors. The PERSTEMPO Program requires all units to report current and projected operational employments to both the Type and Fleet Commanders, and has several limitations on how often a unit can be away from its home port. If a unit is projected to exceed these limits, a report to the CNO is required to be made, and the CNO must authorize the unit(s) to exceed the limitations.

3. Costs and resources needed to achieve objectives of the Fleet Response Plan.

Implementation and execution of the Fleet Response Plan has been cost neutral to the Navy's Operation and Maintenance budget due to offsetting impacts to ships' operations and maintenance budgets. When the Fleet Response Plan was implemented, the Navy increased the nominal deployment cycle 24 months to 27 months. As a result, over a ship's service life, there will be fewer major maintenance availabilities. To maintain ships' material condition without extending the resulting maintenance availabilities, more funding was invested in continuous maintenance, where shipyard personnel perform maintenance without the ship's physical presence in a shipyard. The net result of rebalancing the maintenance requirements between maintenance availabilities and continuous maintenance yielded a neutral impact to the Operations and Maintenance budget. It should be noted that the FRP provides surge capability. Should that capability be called for through actual surging of forces, there would be increased operations and maintenance costs beyond what was programmed due to increased steaming and flying operations and the associated increase in maintenance requirements resulting from increased operations.

4. Operational tests, exercises, war games, experiments, and deployments used to test performance.

The Navy has used, and will continue to use a variety of events, to include deployments and war games, to evaluate the effectiveness of the Fleet Response Plan. This past year, we maintained the Fleet Response Plan's readiness to consistently deliver forward-deployed or ready-to-surge Carrier Strike Groups almost immediately (within 30 days), plus additional Carrier Strike Groups in 90 days or less. The Fleet Response Plan allows us to surge 50 percent more combat power on short notice to deal with future global contingencies than in the past. For example, the Navy was able to maintain the JOHN C STENNIS Carrier Strike Group in a "ready for war" state for 418 of the 509 days of its most recent readiness cycle, which included deployed operations.

The Navy demonstrated the Fleet Response Plan's capability in a surge exercise, SUMMER PULSE '04, deploying seven Carrier Strike Groups across five theaters for three months. The Navy also surged USS BATAAN, BOXER, and KEARSARGE to enable Marine Corps deployments to support ongoing operations in Iraq. This surge capability is maintained across the Fleet 365 days per year. To support this level of operational availability, the Navy has been evaluating and improving our maintenance processes and organizations

5. Lessons learned from implementation of the Fleet Response Plan.

The Navy collects and maintains lessons learned in the Navy Lessons Learned (NLL) data base at the Naval Warfare Development Center and utilizes relevant lessons to incrementally improve the training that occurs in each of the Fleet Response Plan phases. Individual units report lessons learned through the NLL system based on assigned missions (e.g., Maritime Security, Global War on Terror, Anti-piracy). Post-deployment briefings are also used to convey relevant operational issues encountered during the execution of various missions; changes to the training process often occur from these exchanges.

One particular lesson learned was determined after initial indications of successfully generating greater CSG readiness for no increase in cost; it was to match the planned Aircraft Carrier maintenance cycle to the actual realized cycle time. This notional increase resulted in several more months of planned surge capability and made individual cycle start and stop dates more predictable.

As an additional lesson learned, a need exists to update the current PERSTEMPO instruction and associated measure of performance. The current PERSTEMPO instruction was developed in 1985 in the context of the Cold War. But the security environment has changed since then. Since its initial response to the events of 9/11, the Navy has compiled a number of lessons learned in this area and is working to apply it to its deploying forces. Under the current PERSTEMPO program, the Navy has had to either extend or deploy earlier its forces to meet more complex demand requirements. As an example, in 2005 the Navy executed a 26% increase in deployed force presence to meet the needs of the Combatant Commanders. These changes were often made on short notice and created instability in Sailors' lives. In an effort to increase operational availability of naval forces and meet increasingly complex Combatant Commanders' demand for forces, unit deployability and employability has been reviewed with significant consideration placed upon how employment affects Sailors and their families. The effort focused on balancing the operational availability of units while preserving operational readiness and Sailor's quality of life. As a result of the review, updated deployment policies, revised applicable definitions, and codified deployment metrics are being staffed. The Navy will brief the Congress on the new PERSTEMPO instruction when it has completed staffing.

6. Evaluation of ship performance participating in the Fleet Response Plan.

There have been two Carrier Strike Groups to date that have completed the entire Fleet Response Plan cycle. For the purpose of this report, data and analysis reported below were derived from these Carrier Strike Groups.

a. Combat readiness, including training requirements.

Fleet Response Plan implementation has not changed training requirements; rather, it provides for a graduated readiness capability, achieving higher readiness earlier in the cycle. Each ship operating under the Fleet Response Plan has completed all scheduled training and certification exercises, achieving the level of combat readiness designed into each Fleet Response Plan phase.

b. Ship material condition, including trending data for mission degrading casualty reports rated as C3 or C4.

There was no statistically significant impact to each ship's material condition as a result of Fleet Response Plan implementation. Detailed graphical averages, trending and analysis are included in appendix A.

c. Professional development training requirements accomplished during a deployment and at home station.

For all Navy Type Commanders (Air, Surface and Sub-Surface), there has been no decrease in the percentage of required training accomplished through formal home station schools. Two Type Commanders have reported increasing trends in home station school accomplishment rates. An example for Commander, Naval Air Forces units is included in appendix B. Moreover, the Navy has accelerated Distance Support and afloat Integrated Learning Environment capabilities to each ship to enable its Sea Warrior initiative, supplementing traditional deployed education opportunities such as basic skills improvement classes, Program for Afloat College Education (PACE) courses, and in-rate training.

d. Crew retention.

To date, there are no statistically significant indications that the Fleet Response Plan negatively affects retention. Detailed statistical graphs are included in appendix C.

7. Proposed changes to the Surface Force Training Manual.

There are no proposed changes to the Surface Force Training Manual related to implementation of the Fleet Response Plan. Training requirements have not changed; only the phases in which they are to be completed have changed. The same training events are still required for accomplishment to the same level of competence as they were prior to Fleet Response Plan implementation. Moreover, sustainment of capabilities through training has been factored into the Fleet Response Plan to maintain unit and group proficiency.

8. Funding required to effectively implement the operation and maintenance requirements of the Fleet Response Plan by ship class.

Current Navy operation and maintenance requirements are sufficient to effectively implement the Fleet Response Plan due to its cost-neutral nature as described earlier. Actually surging

forces will lead to increased operations and maintenance costs to the extent that surge operations cause an increase in overall steaming operations. The average operations and maintenance costs per Fiscal Year for each ship class (in constant year FY-07 dollars) are as follows:

CVN: $104.4 M per ship per year.
SSN: $ 26.7 M per ship per year.
CG: $ 19.7 M per ship per year.
DDG: $ 12.7 M per ship per year.
FFG: $ 7.5 M per ship per year.

Note: These figures constitute normal investment levels, not differential costs associated with the Fleet Response Plan.

9. Recommendations.

The Navy desires to expand the Fleet Response Plan, to include Expeditionary Strike Groups, as well as all other deployable Navy assets that use a time-phased readiness approach to develop operational capabilities. Experience to date indicates the Fleet Response Plan approach is a viable and appropriate response to meeting global Navy force demands. Accordingly, the Navy is making plans to expand the Fleet Response Plan beyond Carrier Strike Groups and will inform the Congress appropriately as these plans are finalized.

Conclusion:

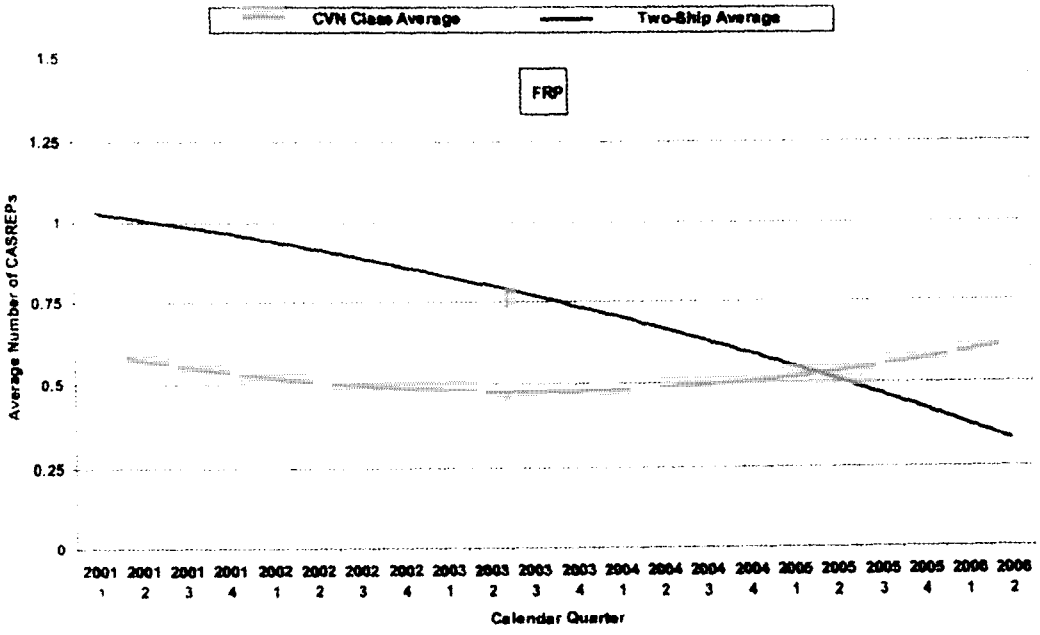
The current security environment has created new demands for Navy forces, from individual units to strike groups, requiring a more agile and flexible capability to respond to Combatant Commander's requirements. The Fleet Response Plan delivers the desired surge capability that supports the Navy's ability to respond to unexpected threats, humanitarian disasters, and contingency operations while supporting the needs of the Combatant Commanders to maintain a global forward presence. It is a cost-neutral solution to providing increased availability of deployable Carrier Strike Groups. Based on the results to date, the Navy is formulating plans to expand the Fleet Response Plan beyond Carrier Strike Groups, and will inform the Congress as these plans are finalized.

APPENDIX A

CASREP DATA FOR CSGS COMPLETING FRP CYCLE

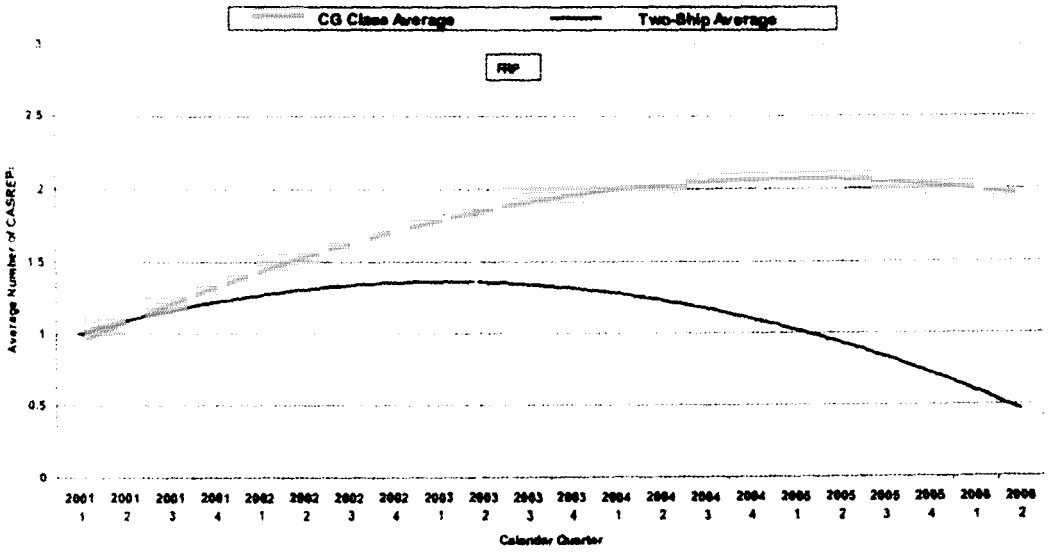
NIMITZ Class Aircraft Carriers (CVNs). Figure (1) depicts the average number of active C3 and C4 Casualty Reports (CASREPs) from January 01 – July 06 for the CVN 68 Class of ships as compared to the combined average number of active C3 and C4 CASREPs for the USS NIMITZ (CVN 68) and USS HARRY S. TRUMAN (CVN 75). Relative to the class average, the two ships experienced higher numbers of CASREPs before May 2003, and lower numbers of CASREPs after May 2003. This data supports the hypothesis of no adverse impact to ship material condition.

Figure (1) - CVN C3 & C4 CASREPs



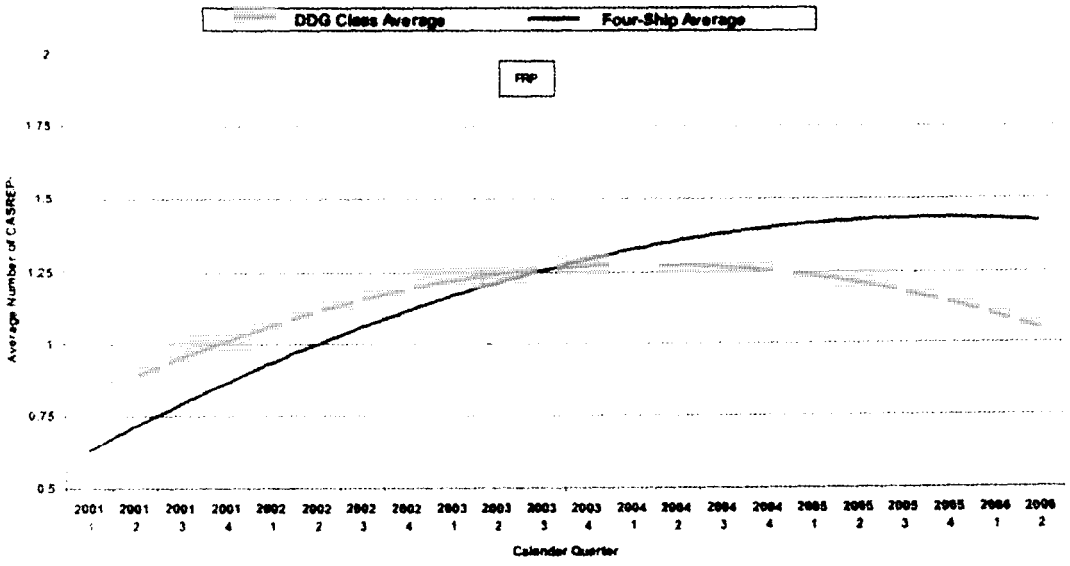
TICONDEROGA Class Cruisers (CGs). Figure (2) depicts the average number of active C3 and C4 Casualty Reports (CASREPs) from January 01 – July 06 for the TICONDEROGA Class of ships as compared to the combined average number of active C3 and C4 CASREPs for the two CGs, USS PRINCETON (CG 59) and USS MONTEREY (CG 61), assigned to the two CSGs of interest. Relative to the class average, the two ships experienced fewer numbers of CASREPs before May 2003, and even fewer numbers of CASREPs after May 2003. This data supports the hypothesis of no adverse impact to ship material condition.

Figure (2) - CG C3 & C4 CASREPs



ARLEIGH BURKE Class Guided Missile Destroyers (DDGs). Figure (3) depicts the average number of active C3 and C4 Casualty Reports (CASREPs) from January 01 – July 06 for the ARLEIGH BURKE Class of ships as compared to the combined average number of active C3 and C4 CASREPs for the four DDGs, USS BARRY (DDG 52), USS HIGGINS (DDG 76), USS MASON (DDG 87), and USS CHAFEE (DDG 90), assigned to the two CSGs of interest. While the CASREP data depicted by the fitted curves shows a higher average number of CASREPs for the four ships when compared to the average DDG class curve, the trend was occurring well before May 2003, and shows no significant change after May 2003. In addition, the data shows a trend that is approaching the class average both before May 2003 and after May 2003. This data supports the hypothesis of no adverse impact to ship material condition.

Figure (3) - DDG C3 & C4 CASREPs



APPENDIX B

FORMAL SCHOOL TRAINING COMPLETION DATA FOR NAVY AIR FORCES UNITS

Below is data from a report on "A Statistical Analysis of Formal School Requirements" initiated by Commander, Naval Air Forces Staff. It does not extend back before the implementation of FRP, but it does show a significant increasing trend in the percentage of personnel in aviation units, including those in Carrier Air Wings, that have completed formal shore based schools for the billets they occupy.

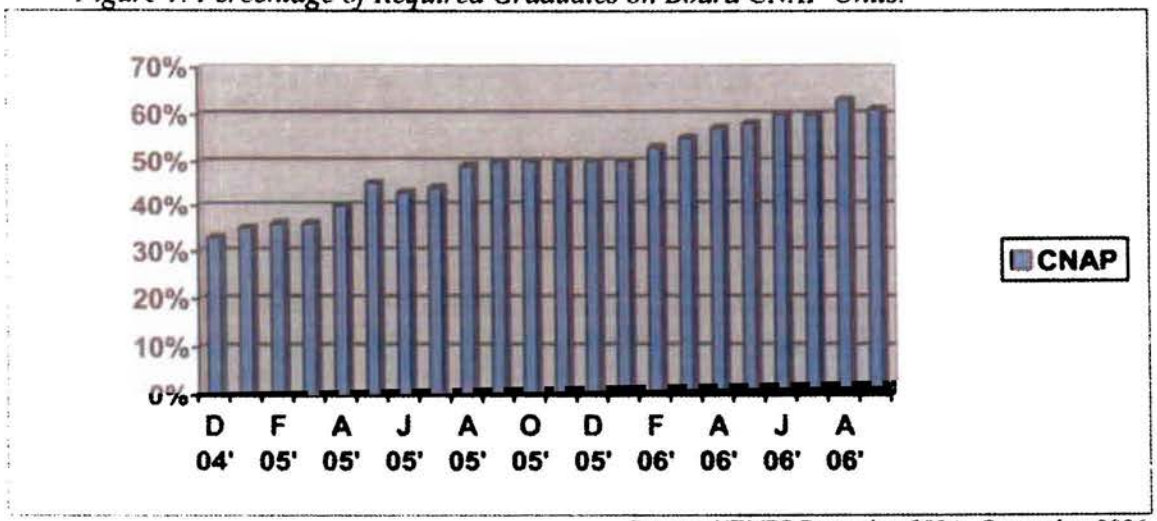
Fleet Response Plan (FRP) Training Impact: A Statistical Analysis of Formal School Requirements

The following *Figures* are populated with the NTMPS Formal Schools Requirements completion percentages for all units used in this analysis. The graphical interpretation of this data provides the basis all conclusions and inferences made in the analysis.

NTMPS Graduates Onboard Data

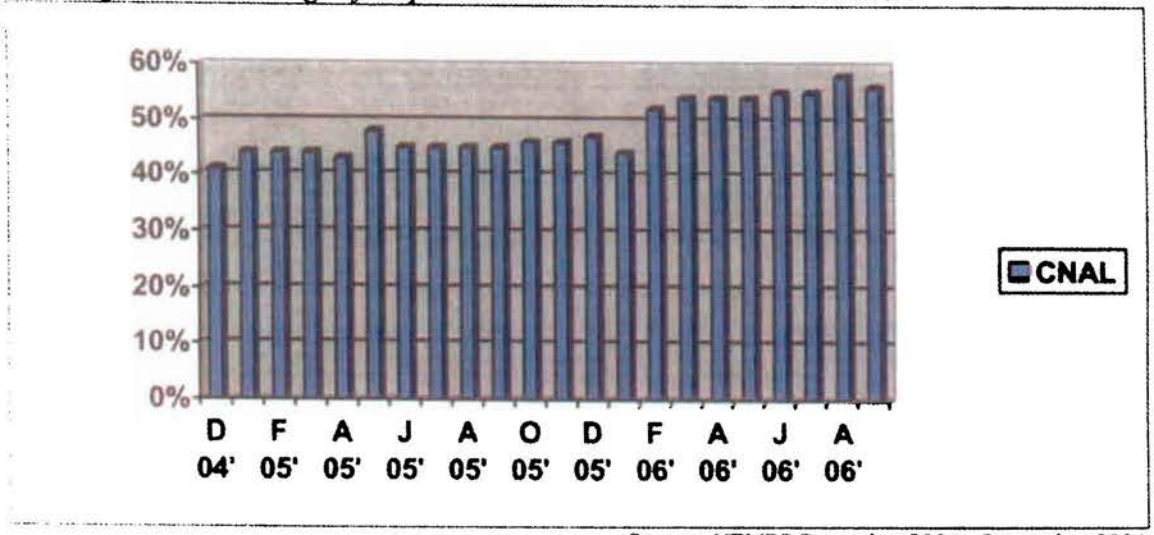
For the 184 units under Commander, Naval Air Forces, the total monthly percentages of *Graduates Onboard* was obtained from the NTMPS database. See *Figures 1 and 2* below.

Figure 1. Percentage of Required Graduates on Board CNAP Units.



Source: NTMPS December 2004 - September 2006

Figure 2. Percentage of Required Graduates on Board CNAL Units..



Source: NTMPS December 2004 - September 2006

Graphical Interpretation of the Data

As *Figures 1 and 2* clearly demonstrate, formal school completions, as measured by *Graduates Onboard*, were apparently not impacted by FRP. In fact, the analysis strongly suggests that training accomplishments have actually increased steadily over the analysis time period.

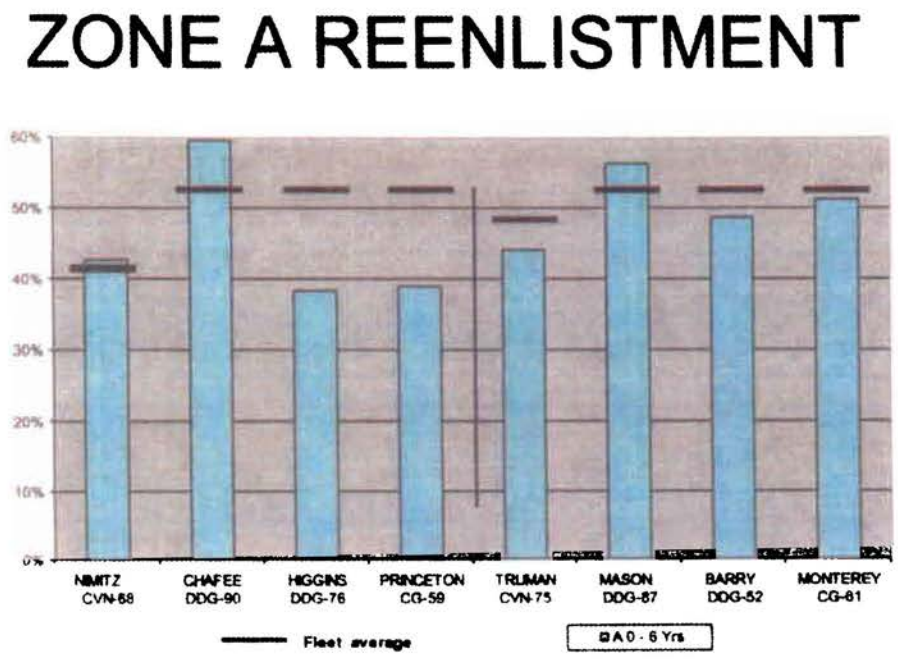
The impact of FRP on training accomplishment cannot be affirmatively determined due to pre-FRP data paucity. Training accomplishment rates have been increasing since 2004.

APPENDIX C

RETENTION STATISTICS FROM UNITS COMPLETING AN ENTIRE FRP CYCLE

This section contains overall retention averages for the surface units of those CSGs that finished a complete FRP cycle ending in FY-06. Figures 1 – 3 show the reenlistment rates by zone averaged over the FRP cycle and compares them to their respective fleet average for that type ship. Figures 4 – 9 provide a more detailed view of CVN retention, since their manpower (and therefore retention) is more significant in number than other units of a CSG. As indicated in the graphs (and the explanatory note below), there are no statistically significant indications that the Fleet Response Plan negatively affects retention.

Figure 1. Zone A reenlistment rates for FRP cycle for designated units.



Note: Both USS HIGGINS and USS PRINCETON averages for Zone A reenlistments were below their respective Fleet averages. Analysis for USS HIGGINS found that it started the FRP cycle near its Fleet average, declined significantly during the period, and then finished the cycle back near its Fleet average. The USS PRINCETON started the FRP cycle significantly below its Fleet average then increased and stabilized at a level above its depicted average for the last half of the FRP cycle.

ZONE B REENLISTMENT

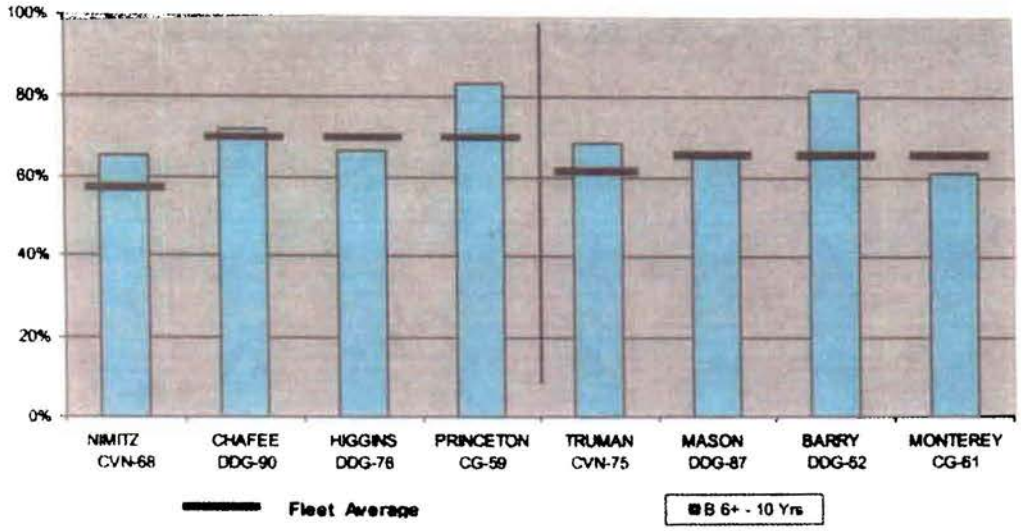


Figure 2. Zone B reenlistment rates for FRP cycle for designated units.

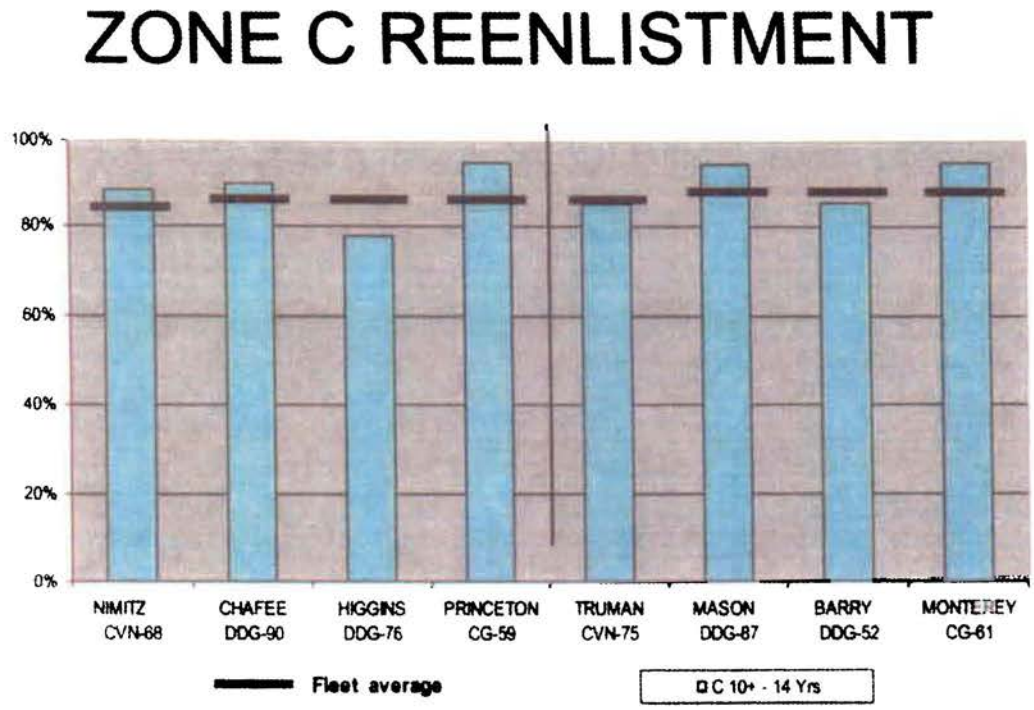


Figure 3. Zone C reenlistment rates for FRP cycle for designated units.

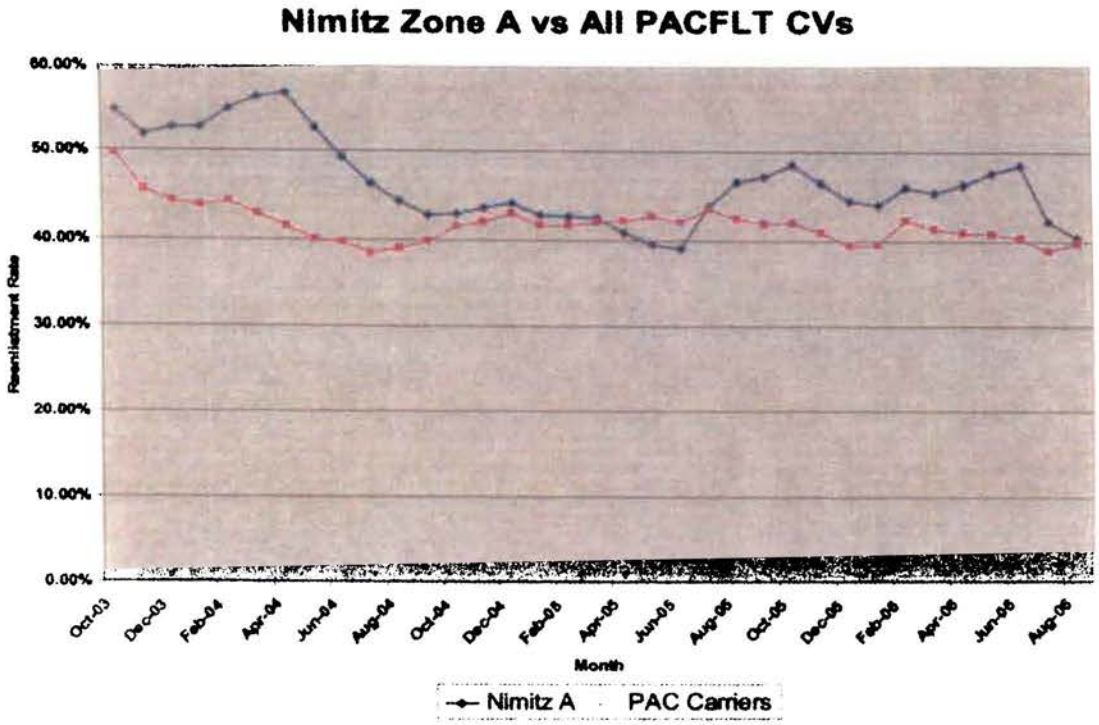


Figure 4. Zone A reenlistment rates for USS Nimitz vs. CVN average.

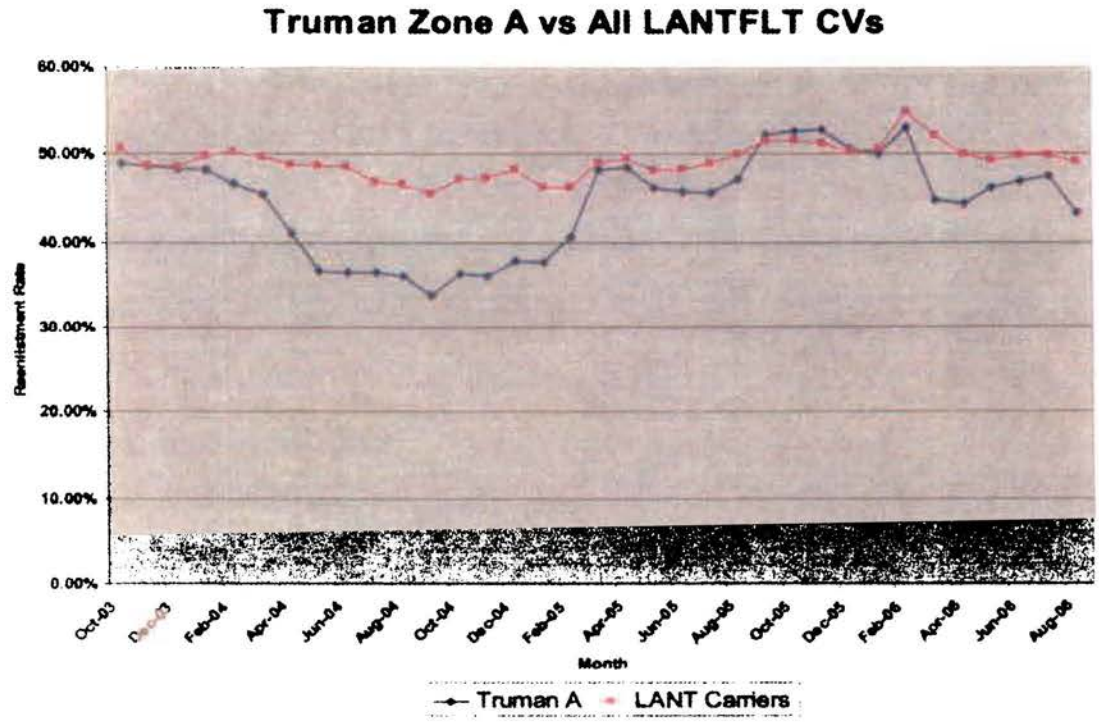


Figure 5. Zone A reenlistment rates for USS Truman vs. CVN average.

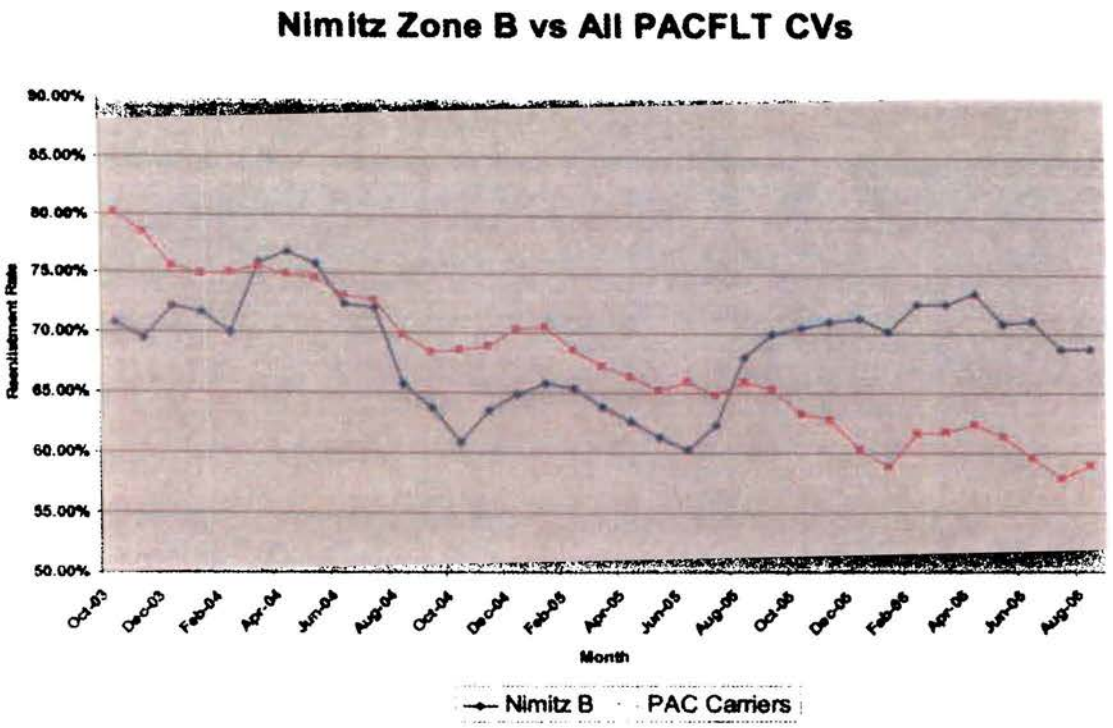


Figure 6. Zone B reenlistment rates for USS Nimitz vs. CVN average.

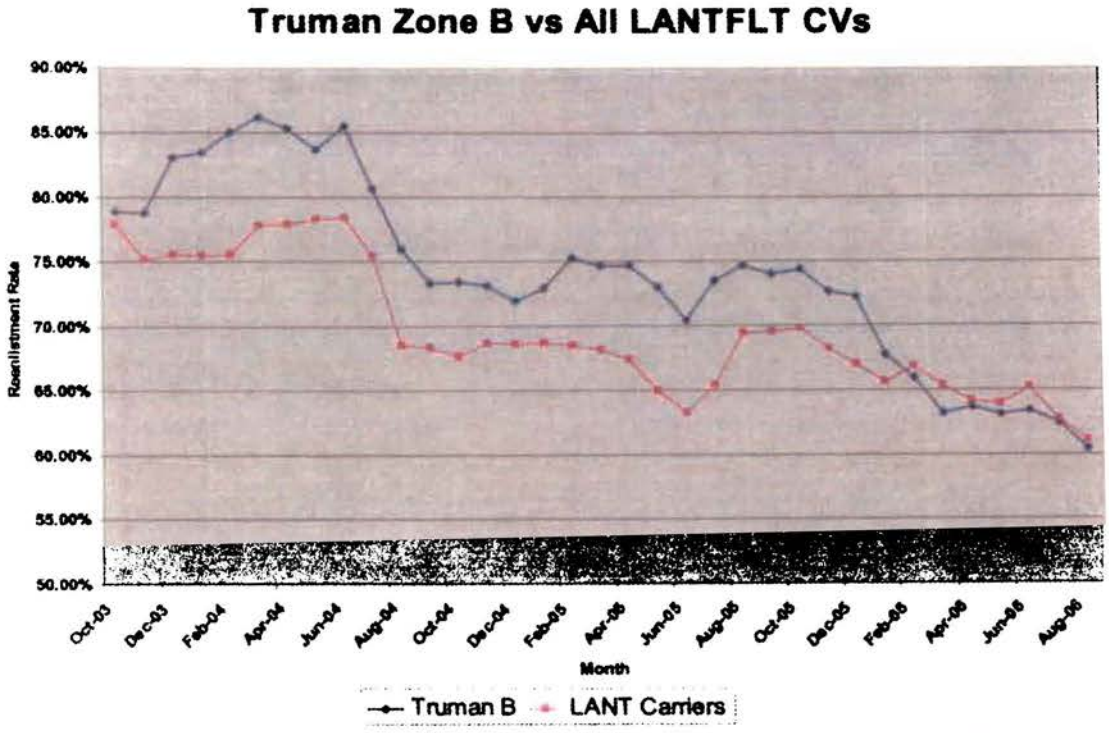


Figure 7. Zone B reenlistment rates for USS Truman vs. CVN average.

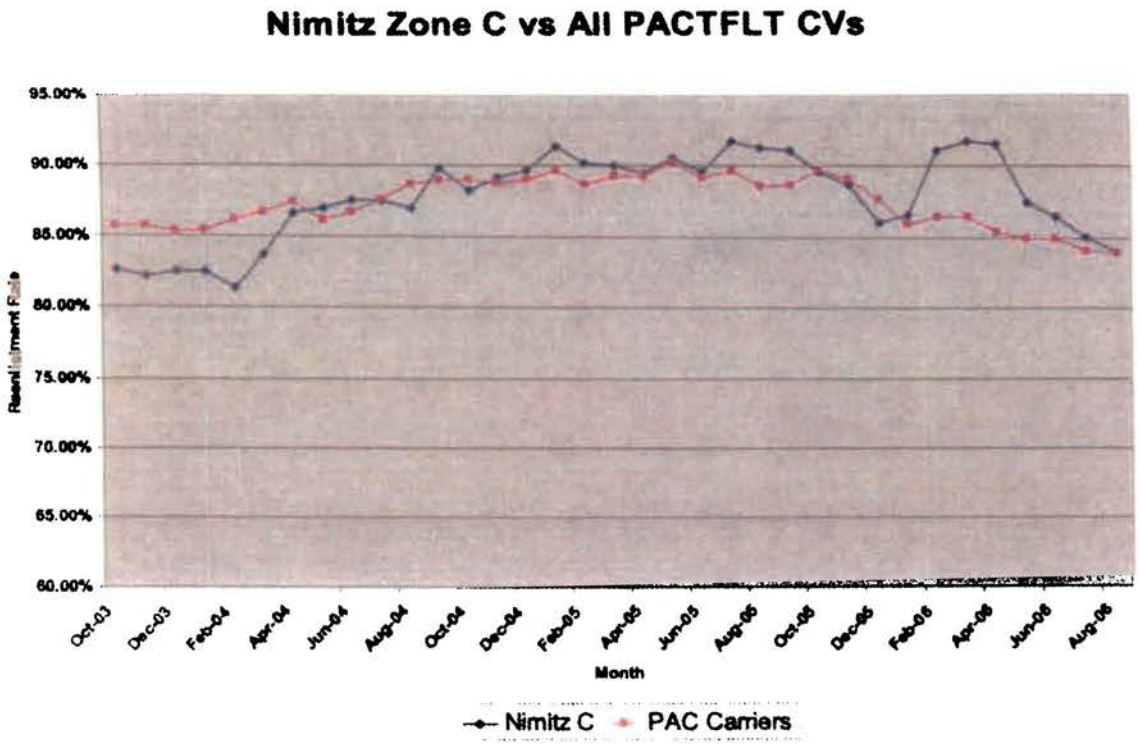


Figure 8. Zone C reenlistment rates for USS Nimitz vs. CVN average.

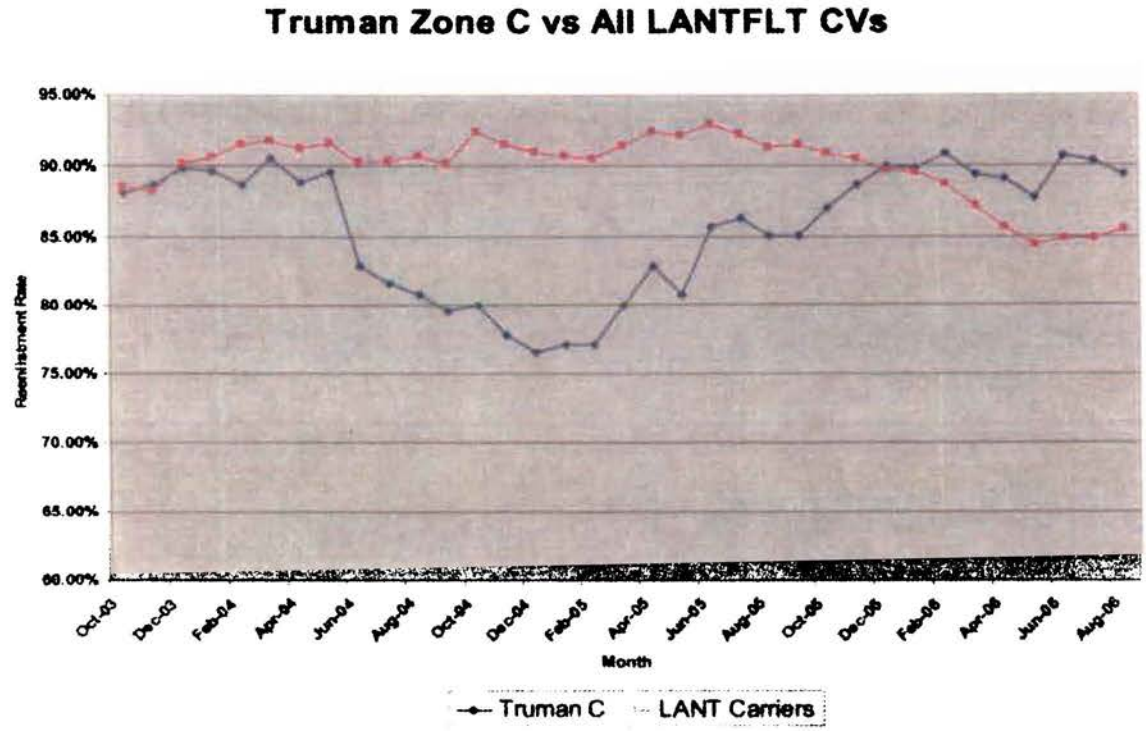


Figure 9. Zone C reenlistment rates for USS Truman vs. CVN average.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

November 29. 2006

The Honorable John Warner
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 341 of the FY 2007 National Defense Authorization Act, Public Law 109-364, directed the Secretary of the Navy to provide a report addressing the Navy's Fleet Response Plan.

Enclosed is the requested information on the U.S. Navy's Fleet Response Plan that is used to govern the readiness cycle of Navy units. Also enclosed is a copy of the Navy Instruction that defines the phases of a readiness cycle.

A similar letter has been sent to Chairman Hunter. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure: (1) Report on Navy's Fleet Response Plan
(2) OPNAVINST 3000.15

Copy to:
The Honorable Carl Levin

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JAN 31 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 1015 of the FY 2007 Defense Authorization Act, Public Law 109-364, requested the Secretary of the Navy submit a report describing the options available for future lease arrangement with respect to the Guam Shipyard in Santa Rita, Guam.

The report requested several important and detailed matters be addressed, including: an evaluation of the performance of the lessee and operators of the Guam Shipyard; an evaluation of options with respect to the Guam Shipyard lease; options for new use arrangements; input from at least three contractors on the viability of operations based on the projected workload for FYs 2008 through 2013; and the Secretary's recommendations with respect to continuation of the existing Guam Shipyard lease and which option the Secretary recommends for FY 2008.

On December 12, 2006 I provided you a letter indicating that we were still collecting the contractor data. The data has now been collected and incorporated into the enclosed report.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairman Skelton.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JAN 31 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 1015 of the FY 2007 Defense Authorization Act, Public Law 109-364, requested the Secretary of the Navy submit a report describing the options available for future lease arrangement with respect to the Guam Shipyard in Santa Rita, Guam.

The report requested several important and detailed matters be addressed, including: an evaluation of the performance of the lessee and operators of the Guam Shipyard; an evaluation of options with respect to the Guam Shipyard lease; options for new use arrangements; input from at least three contractors on the viability of operations based on the projected workload for FYs 2008 through 2013; and the Secretary's recommendations with respect to continuation of the existing Guam Shipyard lease and which option the Secretary recommends for FY 2008.

On December 12, 2006 I provided you a letter indicating that we were still collecting the contractor data. The data has now been collected and incorporated into the enclosed report.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairman Levin.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

REPORT TO CONGRESS

ON

OPTIONS FOR FUTURE LEASE ARRANGEMENT FOR GUAM SHIPYARD

Prepared by:

Ships/Submarine Readiness Branch (N431)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

January 2007

REQUIREMENT

Section 1015 of the Fiscal Year 2007 Defense Authorization Act directed the Secretary of the Navy to submit a report describing the options available with respect to the Guam Shipyard in Santa Rita, Guam. The required report shall include the following:

1. An evaluation of the performance of the entities that, as of the date of the enactment of this Act, are the lessee and operators of the Guam Shipyard under the terms of the lease in effect on the date of the enactment of this Act.

2. An evaluation of each of the following options with respect to the Guam Shipyard lease:

(a) Terminating the remaining term of the lease and issuing a new 25 year lease with the same entity.

(b) Terminating the remaining term of the lease with respect to the approximately 73 acres within the Guam Shipyard that are required for mission requirements and leaving the remaining term of the lease in effect with respect to the approximately 27 acres within the facility that are not required for mission requirements.

(c) Terminating the remaining term of the lease and negotiating a new use arrangement with a different lessee or operator. The new use arrangement options shall include:

- Government-owned and government-operated facility.
- Government-owned and contractor-operated facility
- Government-leased property for contractor-owned and contractor-operated facility.

3. In evaluating the options, the Secretary of the Navy shall include an evaluation of each of the following:

(a) The anticipated future military vessel repair and workload on Guam in relation to the 2006 Quadrennial Defense Review, issued on February 6, 2006, pursuant to Section 118 of Title 10, United States Code.

(b) The anticipated military vessel repair and workload attributable to vessels comprising the Maritime Prepositioning Ship Squadron Three.

(c) The anticipated military vessel repair and workload due to a change in Section 7310 of Title 10, United States Code that would designate Guam as a United States homeport facility.

(d) The expected workload if the submarine tender, USS FRANK CABLE (AS 40), is decommissioned.

(e) The estimated reacquisition costs of transferred Government property.

(f) Costs to improve floating dry dock mooring certification and required nuclear certification for the floating dry dock designated as AFDB-8 to conduct the following maintenance:

- Dry docking selected restricted availabilities and mid-term availability for attack submarines.

- Dry docking phased maintenance availabilities for amphibious vessels, including amphibious assault ships, dock landing ships, and amphibious transport dock ships.
- Dry docking phased maintenance availabilities for surface combatants including cruisers, destroyers and frigates.

(g) Commercial opportunities for development to expand commercial ship repair and general industrial services, given anti-terrorism force protection requirements at the current facility.

(h) Estimates from three contractors for the maintenance and repair costs associated with executing a multiship, multioption contract that would generate a minimum 60,000 manday commitment for the Department of the Navy and Military Sealift Command vessels.

(i) A projection of the maintenance and repair costs associated with executing a minimum 60,000 mandays for the Department of the Navy and Military Sealift Command vessels as a Government-owned and Government-operated Navy ship repair facility.

4. In evaluating the options, the Secretary of the Navy shall seek input from at least three contractors on the viability of operations based on the projected workload Fiscal Years 2008 through 2013.

5. The Secretary of the Navy shall include in the report recommendations with respect to continuation of the existing Guam Shipyard lease based on evaluations conducted and the option that the Secretary recommends for Fiscal Year 2008.

EXECUTIVE SUMMARY

The 1995 Defense Base Closure and Realignment Commission Report recommended the closure of the Naval Ship Repair Facility Guam as a fully functional ship repair facility. The Report recommended that if Military Sealift Command (MSC) ships remain in Guam, that a private sector ship repair capability should be developed. To assist in developing a private sector ship repair capability the Department of the Navy leased the property of the former Ship Repair Facility, Guam to the Guam Economic Development and Commerce Authority (GEDCA) (formerly Guam Economic Development Authority) which subsequently subleased the property to Guam Shipyard Inc. (GSY) for use in operating a ship repair facility and related industrial services. The majority of the work conducted by GSY is maintenance on MSC ships. The work has been awarded to GSY on a non-competitive basis since 1998.

Although the U.S. Navy continues to value the presence of a selective ship depot maintenance capability on Guam, it is our preference such capability be supported through the competitive acquisition of Navy ship maintenance work by GSY.

1. Evaluation of Guam Shipyard Performance

There are two performance aspects that require evaluation, lease contract performance and ship maintenance contract performance. Lease performance by GEDCA has been substandard, requiring the Navy to serve several notices of breach of performance. In general, GSY ship maintenance performance has been of comparable quality to other U.S. based shipyards.

a. Lease Performance

Under the Defense Base Closure and Realignment Act of 1990, P.L. 101-510, the Ship Repair Facility (SRF), Guam was closed on September 30, 1997. The Secretary of the Navy, pursuant to 10 U.S.C. § 2667 (f) (1), determined that a lease agreement between the United States of America and GEDCA would "facilitate State and local economic development efforts pending final disposition of the real and personal property and ... pursuant to 10 U.S.C. § 2667 (f) (2), has determined that a public interest will be served as a result of this lease."[1]

Comprised of a portion of the former SRF Guam consisting of approximately 100 acres, certain U.S. owned related personal property remaining on the leased premises, and certain U.S. owned utility systems within the leased premises were transferred to GEDCA.

The term of the current lease is for a period of ten years, beginning on October 1, 1997. If for any reason the U.S. is unable to dispose of all or portions of the leased premises by conveyance of fee title prior to the ten-year anniversary of the term beginning date, the GEDCA will have the option to extend the lease for an additional five years for those portions of the leased premises for which fee title has not been conveyed. The GEDCA must provide written notice at least ninety days prior to the expiration of the original term.

In lieu of rent, GEDCA is to provide all security and safety protection and maintenance/repair services for the leased premises as specified in Sections 3 and 13 of the lease agreement. GEDCA is also required to apply all revenue received from subleasing the leased premises first to reimburse the U.S. for the caretaker site office costs incurred by the U.S. in connection with the administration of the lease and afterwards to reimburse itself for the costs of marketing of the leased premises, property management, facilities maintenance and repair, and Navy approved improvements to the property.

Overall the Navy judges the lease performance by GEDCA and sub-lessee GSY as sub-standard for the reasons outlined below:

---

[1] Interim Lease Agreement between Department of the Navy and Guam Economic Development Authority at the Former Ship Repair Facility, Guam, Navy Identification No. N627429yRP00090

While the Navy has not pursued a default or other claim of damages against either GEDCA or GSY, GEDCA, as the party in privity with the U.S., was officially notified by Naval Facilities Engineering Command, Pacific Division of three breaches of performance in 2004 and four breaches of performance in 2006. Issues of noncompliance with lease terms that have been raised with GEDCA include:

- In 2004, GEDCA was notified of possible breaches for failure to obtain Navy approval for certain subleases (§4) of the property. GEDCA leased a portion of the property to TYCO, LTD which encumbered the typhoon mooring system on Wharf Q, an important strategic asset used to secure military vessels and GSY dry docks during a typhoon. GEDCA leased a building to Marine World, Inc., a commercial venture in Tumon, for use as a marine life support facility.

- GEDCA and GSY have been notified on seven occasions of breach of performance due to a failure to maintain the property, specifically the dumping and open storage of debris and rubbish materials that present a potential hazard to adjacent Navy facilities and personnel during severe weather or typhoon conditions. The open dumping of trash and debris also presents unknown environmental hazards. To date, GEDCA and GSY have failed to cure this breach and have declined to remove and manage the debris in accordance with the Navy's direction.

Additionally, visual inspection indicates that many of the facilities are in a substandard and deteriorated condition. Further, concerns have been raised regarding whether revenues GEDCA has received from subleasing the property have been expended in accordance with lease requirements. The Navy has received a final audit report dated January 18, 2007, from the Defense Contract Audit Agency audit of GEDCA's revenues and expenditures. This audit report is being reviewed by the Navy and further action is pending completion of that review.

Finally, GEDCA's sublease with GSY has also been substandard. GEDCA presented GSY a Notice of Default Under Sublease Agreement on February 4, 2005 for failure to comply with the following requirements: submission of audited financial statements for Fiscal Years 2001, 2002, 2003, and 2004; proof of insurance; payment for utility services provided by U.S. Navy Public Works Center; and relocation of the floating drydock AFDM-8. GEDCA terminated the sublease agreement with GSY on February 18, 2005 (the sublease was reinstated on February 16, 2006).

b. Maintenance Contract Performance

The two primary Navy customers acquiring services from GSY are MSC and Commander, Submarine Forces Pacific (SUBPAC). Since FY 1998, MSC, in support of PACFLT, has issued Class Justification and Approvals (J&As) for other than full and open competition to authorize award of non-competitive contracts for ship repair to GSY. The initial two year Class J&A was issued for three reasons:

- Take action consistent with the 1995 BRAC recommendations.
- Provide start-up work to allow GSY to become a viable shipyard.
- Recognize the strategic value of sustaining some degree of ship depot maintenance capability in this Western Pacific U.S. territory.

It was Navy's intention that the sole sourcing of work to GSY would be an interim measure for the period necessary for GSY to develop a commercial base for depot repair work in Guam. Given the fact GSY has operated under this sole-source approach for eight years, it is the Navy's assessment that sufficient time has expired to allow GSY to develop a commercial repair base. Although no such base has materialized to date, Section 1014 of the Fiscal Year 2007 Defense Authorization Act redefined Navy ship homeporting and has therefore created an expanded opportunity for GSY to competitively bid for more Navy ship repair work. Given this change, Navy considers the sole sourcing of work to GSY no longer necessary nor appropriate. GSY should now have the experience and capability to competitively bid for ship maintenance work, and in doing so, sustain sufficient capability to meet the Navy's desire for a facility capable of selective ship depot maintenance in Guam (primarily hull, mechanical, electrical and weight handling equipment repair).

GSY retains expertise in Hull, Mechanical and Electrical (HM&E) work. Execution of this type of work by GSY is adequate and of comparable quality to other U.S. based shipyards. As a result of the nature of the legacy equipment and design of the current MSC ships operating out of Guam (T-AFS & T-AE), MSC is able to tailor the contracted repair packages to match the skills resident at GSY. These older ships are very HM&E intensive. Within the next five years, the current ships operating out of Guam will be replaced with T-AKEs. T-AKEs are built to commercial standards and are more technologically advanced than current MSC ships. These ships are all metric, have an advanced degaussing system and high voltage electric system throughout the ship. GSY has discussed with MSC the technical expertise required to maintain this new T-AKE ship class.

The T-AKE requires drydocking once every five years vice the requirement of twice every five years for the current ships. This lengthened docking interval is expected to result in a commensurate reduction in MSC depot maintenance workload in Guam as these ships are introduced.

SUBPAC utilized GSY to conduct 65% of the USS FRANK CABLE (AS 40) FY 2004 Docking Planned Maintenance Availability (DPMA). The quality of the completed work by GSY was excellent. During 2005, GSY provided docking, undocking and shore

services to USS SAN FRANCISCO (SSN 711) after her grounding to enable Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility personnel to accomplish necessary repairs to allow safe transit to the Continental United States (CONUS).

2. Evaluation of Guam Shipyard Lease Options

a. Terminate remaining term of lease and issuance of new 25 year lease with same entity.

NOT RECOMMENDED. Issuance of a 25 year lease is not judged to be in the best interest of the U.S. Navy at this time. A clear picture of the future force structure requirements in Guam has not yet been finalized.

The relocation of USMC Expeditionary Force components and headquarters to Guam and expansion of waterfront capabilities and shore side facilities is anticipated, but not yet finalized. Issuance of a new 25 year lease with the same footprint would restrict the U.S. Navy from the most efficient utilization of scarce real estate on the island.

b. Termination of remaining term of the lease with respect to approximately 73 acres within the Guam Shipyard that are required for mission requirements and leaving the remaining terms of the lease in effect with respect to the approximately 27 acres within the Facility that are not required for mission requirements.

RECOMMENDED WITH COMMENT. A reduced footprint would be beneficial to the U.S. Navy to allow longer lead time to plan potential expansion of waterfront capabilities and facilities to support embarkation operations and accommodation of additional transient ships. Negotiations with GEDCA would be required to reduce the current footprint.

c. Termination of the remaining term of the lease and negotiating a new use arrangement with a different lessee or operator.

NOT RECOMMENDED. For the reasons previously stated, it would be premature to negotiate a new use arrangement with a different lessee or operator until the future site utilization requirement for Guam is finalized. Having said that, the following initial assessment of the alternatives outlined are provided:

- Government-owned and government-operated facility: In the Defense Base Closure and Realignment Commission 1995 Report to the President, the Secretary of Defense recommended closure of SRF Guam on the basis that sufficient capacity existed in DoD's remaining organic ship depot maintenance facilities to meet Navy needs for such facilities. That assessment remains valid.

- Government-owned and contractor-operated facility: Negotiating a new use arrangement with a different lessee or operator is not judged to be in the best interest of the U.S. Navy at this time. A clear picture of the future force structure requirements in Guam has not yet been finalized. Negotiation of a new use arrangement prior to final

determination of force structure requirements would restrict the U.S. Navy from the most efficient utilization of scarce real estate on the island.

- Government-leased property for contractor-owned and contractor-operated facility: Due to the physical location of the former SRF, disposal of the land and physical property that comprised SRF is not in the best interest of the U.S. Government as it would essentially "carve out" a section of an integrated waterfront, therefore restricting the Navy from the most efficient utilization of that waterfront as future requirements dictate.

3. Evaluation of Workload.

a. Anticipated future military vessel repair and workload on Guam in relation to the 2006 Quadrennial Defense Review (QDR).

The QDR Report states that "the Fleet will have a greater presence in the Pacific Ocean, consistent with the global shift of trade and transport. Accordingly, the Navy plans to adjust its force posture and basing to provide at least six operationally available and sustainable carriers and 60% of its submarines in the Pacific to support engagement, presence and deterrence"[2].

Assignments of depot availabilities are made in accordance with the following Navy Availability Assignment Business Rules:

- Schedule maintenance in ship's homeport when possible (PERSTEMPO/Quality of Life). OPNAVINST 4700.7K requires any availability assigned to the private sector that is less than six months in duration be executed in the ship's homeport provided adequate competition, capacity and capability exists;
- Optimize critical skill usage; and
- Load public shipyards first to efficiently use organic capacity.

Increased naval presence in the Pacific will result in additional U.S. Navy port visits to Guam. However, per the Naval Supervisory Activity list, no additional vessels are currently scheduled to be homeported in Guam; therefore, no additional scheduled depot workload is likely to be programmed for Guam. The additional port visits may increase the amount of voyage repairs conducted in Guam; however, the majority of such voyage repair workload would be expected to be within the capability and capacity of the USS FRANK CABLE (AS 40) Repair Department.

[2] Quadrennial Defense Review Report, February 6, 2006

b. Anticipated military vessel repair and workload attributable to vessels comprising Maritime Prepositioning Ship Squadron Three.

There is no anticipated repair or depot workload attributable to vessels comprising the Maritime Prepositioning Ship Squadron Three (MPS 3) planned to be accomplished in Guam. The ships assigned to MPS 3 will continue to conduct periodic overhaul or repair availabilities in CONUS which are scheduled to coincide with routine periodic downloads and maintenance of their cargo, also done CONUS.

c. Anticipated military vessel repair and workload due to a change in Section 7310 of Title 10, United States Code that would designate Guam as a United States homeport facility.

Designating Guam as a U.S. homeport facility is not anticipated to change the vessel repair workload associated with U.S. Navy ships. No additional ships beyond the current submarines and tender are scheduled for a homeport change to Guam. Potential voyage repairs are addressed in paragraph 3a above.

MSC ships are also subject to this statute. The Navy does not designate homeports for MSC vessels. As a matter of policy, these ships are considered "homeported in the U.S." for purposes of Section 7310 of Title 10 U.S.C. unless the ship will remain deployed overseas for a period exceeding two years. The five MSC ships operating out of Guam currently utilize GSY for planned and unplanned maintenance. No change in MSC force structure is anticipated in this area. Therefore, no increase in MSC ship repair workload in Guam is anticipated due to the change in Section 7310 of Title 10, United States Code.

d. The expected workload if the submarine tender, USS FRANK CABLE (AS 40), is decommissioned.

The overall impact of decommissioning USS FRANK CABLE (AS 40) would be a net reduction of workload for GSY. FRANK CABLE is scheduled for a pier-side availability every 30 months. Approximately 65% of the work in these availabilities has been non-competitively assigned to GSY for accomplishment. If FRANK CABLE is decommissioned, this work would be lost to GSY.

e. The estimated reacquisition costs of transferred Government property.

The Navy has no interest in reacquiring Class 3 and 4 properties (e.g., worker's tools) currently in use by GSY due to equipment obsolescence. The only pieces of property that fall into Class 1 or 2 that was not retained by the Government are the floating drydocks (AFDB-8, AFDM-8). GSY currently holds the title to these drydocks. They were declared excess by the Navy and that condition has not changed.

f. Cost to improve floating dry dock mooring certification and required nuclear certification for the floating dry dock designated as AFDB-8 to conduct the following maintenance:

Dry docking selected restricted availabilities and mid term availability for attack submarines.

Dry docking phased maintenance availabilities for amphibious vessels, including amphibious assault ships, dock landing ships, and amphibious transport dock ships.

Dry docking phased maintenance availabilities for surface combatants including cruisers, destroyers and frigates.

The Navy certifies drydocks to dock U.S. Navy ships in accordance with MIL-STD-1625(C). AFDB-8 is not certified to drydock U.S. Navy ships. The drydock meets all requirements to obtain Navy certification except for the mooring system. The mooring system design must be adequate to withstand the most severe weather that the facility is likely to encounter with a maximum ship in dock. GSY's rough order of magnitude estimated cost to upgrade the mooring system for AFDB-8 to comply with MIL-STD-1625(C) is between $8M and $10M.

Nuclear maintenance beyond the capability or capacity of ships force shall be assigned only to nuclear capable shipyards or nuclear capable intermediate maintenance activities and performed following the requirements established by the Director of Naval Nuclear Propulsion Program. U.S. Navy nuclear powered warships should only be routinely drydocked in facilities owned and operated by either the U.S. Navy or an activity authorized to perform nuclear work. GSY is not certified to perform nuclear work nor is this capability anticipated to be required from GSY. Adequate capacity currently exists to perform nuclear work within the existing four naval shipyards and two nuclear capable private shipyards

Submarine certification for unrestricted operations is maintained by accomplishment of prescribed and required maintenance of the submarine safety (SUBSAFE) material condition. Activities authorized to perform SUBSAFE work are designated in NAVSEA NOTICE 5000. GSY is not certified to perform SUBSAFE work nor is this capability anticipated to be required from GSY as discussed in paragraph 3d above.

Drydocking phased maintenance availability assignments are made in accordance with the criteria outlined in paragraph 3a above. No additional vessels are scheduled to be homeported in Guam, therefore, no additional scheduled depot workload is programmed nor anticipated for Guam.

g. Commercial opportunities for development to expand commercial ship repair and general industrial services.

Opportunity for commercial ship repair and general industrial services is addressed in the lease agreement between Navy and GEDCA. The Navy is not in a position to comment further on the commercial opportunities for development.

h. Contractor Estimates for the maintenance and repair costs associated with executing a multiship, multioption contract that would generate a minimum 60,000 manday commitment for the Department of the Navy and Military Sealift Command vessels.

A Sources Sought Announcement was issued seeking potential sources that would be interested in performing maintenance and repair work onboard both Military Sealift Command and U.S. Navy ships in Guam. Interested sources were requested to submit a rough estimate of the costs associated with executing a multiship, multioption contract that would generate a minimum 60,000 manday commitment per year, for fiscal years 2008 through 2013. Results of the Sources Sought Announcement are summarized in paragraph 4 below.

Since 1998, with the exception of 2004 and the FRANK CABLE Drydocking Phased Maintenance Availability, the average depot mandays executed by GSY are 34,000.

For Fiscal Year 2008, using an average manday rate from the potential sources, the estimated maintenance and repair cost associated with executing 60,000 mandays is $23.6M.

i. A projection of the maintenance and repair costs associated with executing a minimum 60,000 mandays for the Department of the Navy and Military Sealift Command vessels as a Government owned and Government operated Navy ship repair facility.

Although the Navy does not currently operate a non-nuclear ship depot maintenance facility, the costs of such a facility can be approximated by using comparable commercial sector manday rates. On that basis, the projected maintenance and repair costs associated with executing 60,000 mandays by a Government owned and Government operated Navy ship repair facility is approximately $26.3M per year.

4. Contractor Input

As noted above in paragraph 3h, a Sources Sought Notice was issued seeking potential sources who would be interested in performing maintenance and repair work onboard both Military Sealift Command and U.S. Navy ships in Guam.

Sixteen (16) responses were received. Responses were received from both large and small businesses; the incumbent, one Native American Corporation, companies with extensive ship repair experience, and those with limited ship repair experience, major shipyards, smaller shipyards, and holders of Naval Sea Systems Command (NAVSEA) issued Master Ship Repair Agreements and Agreements for Boat Repair.

Using the data from the Sources Sought Announcement for Fiscal Year 2008, the estimated annual cost ranged from a low of $10.8M to a high of $42.1M. Based on an average manday rate from the potential sources, the estimated maintenance and repair cost associated with executing 60,000 mandays is $23.6M.

Therefore, compared to the estimated cost for a Government owned and Government operated Navy ship repair facility of $26.3M per year, it is reasonable to assume that a negotiated contract would be more cost effective.

5. Recommendation for the continuance of existing Guam Shipyard lease

Lease alternatives were assessed in paragraph 2 above. The Navy's recommendation is to allow the current ten year lease term to run to expiration on October 1, 2007 and to open negotiations with GEDCA to terminate the five year term renewal option on the lease or alternatively to allow the five year option to run but negotiate a reduction in the current footprint to 23 acres. If negotiations are unsuccessful, the current lease should be allowed to run to expiration or be terminated for cause if grounds for such exist in accordance with the current lease provisions.

CONCLUSION

Although the U.S. Navy continues to value the presence of a facility capable of accomplishing selective ship depot maintenance (primarily hull, mechanical, electrical and weight handling equipment repair) on Guam, such capability should be supported through the competitive acquisition of Navy ship maintenance work by GSY. The current lease should be allowed to expire as scheduled unless terminated earlier for cause if grounds for such exist pursuant to the terms of the lease.

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

DEC 19 2006

The Honorable Duncan L. Hunter
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 1015 of the FY 2007 Defense Authorization Act, Public Law 109-364, requested the Secretary of the Navy submit a report describing the options available for future lease arrangement with respect to the Guam Shipyard in Santa Rita, Guam.

The report requested several important and complex matters be addressed, including: an evaluation of the performance of the lessee and operators of the Guam Shipyard; an evaluation of options with respect to the Guam Shipyard lease; options for new use arrangements; input from at least three contractors on the viability of operations based on the projected workload for FYs 2008 through 2013; and the Secretary's recommendations with respect to continuation of the existing Guam Shipyard lease and which option the Secretary recommends for FY 2008.

In order to seek input from at least three contractors, the Military Sealift Command (MSC) issued a Sources Sought Announcement to gather information on potential sources who would be interested in performing maintenance and repair work onboard both MSC and U.S. Navy ships in Guam. The closing response date for this market survey is December 21, 2006. The contractor's information is needed to be able to provide a recommendation based on all the facts. Therefore, the Navy will submit the complete report by January 31, 2007.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairman Warner.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Ike Skelton
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

DEC 12 2006

The Honorable John Warner
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 1015 of the FY 2007 Defense Authorization Act, Public Law 109-364, requested the Secretary of the Navy submit a report describing the options available for future lease arrangement with respect to the Guam Shipyard in Santa Rita, Guam.

The report requested several important and complex matters be addressed, including: an evaluation of the performance of the lessee and operators of the Guam Shipyard; an evaluation of options with respect to the Guam Shipyard lease; options for new use arrangements; input from at least three contractors on the viability of operations based on the projected workload for FYs 2008 through 2013; and the Secretary's recommendations with respect to continuation of the existing Guam Shipyard lease and which option the Secretary recommends for FY 2008.

In order to seek input from at least three contractors, the Military Sealift Command (MSC) issued a Sources Sought Announcement to gather information on potential sources who would be interested in performing maintenance and repair work onboard both MSC and U.S. Navy ships in Guam. The closing response date for this market survey is December 21, 2006. The contractor's information is needed to be able to provide a recommendation based on all the facts. Therefore, the Navy will submit the complete report by January 31, 2007.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairman Hunter.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Carl Levin
Ranking Minority Member

REPORT TO CONGRESS

ON

NAVY STRATEGY FOR DDG 1000
FOLLOW SHIP PROCUREMENT

PREPARED BY
PROGRAM EXECUTIVE OFFICE, SHIPS
WASHINGTON, DC 20350

JANUARY 2007

FOR OFFICIAL USE ONLY

1.0 REQUIREMENT

The FY 2007 Senate Armed Services Committee Report 109-254 directed the Secretary of the Navy to submit to the congressional defense committees, not later than 30 days prior to lead ship contract(s) award, a report on the competition plan for DDG 1000 follow ship procurement. The report is to include the range of possible outcomes for awarding follow ships, the Navy's estimated cost for the respective ships, the estimated cost benefit provided by competition, the basis for determining contract award, and the type of contract planned for the award. The report shall also address potential impact of follow ship awards on the lead ship costs or schedules, including an assessment of workload impacts at the respective shipyards.

2.0 EXECUTIVE SUMMARY

In response to the Congressional requirement, this report provides a status of the DDG 1000 follow ship procurement strategy. The Navy established a senior working group in early 2006 to review the strategy. This ongoing effort is considering several complex and critical contractual, financial and programmatic issues – all highly interdependent. This working group solicited and received input from the shipbuilders on various options in May/June 2006.

While the Navy remains sensitive to the importance of maintaining the unique skills and knowledge at the surface combatant shipyards to ensure both (Bath Iron Works, Bath ME and Northrop Grumman Ship Systems, Ingalls Division, Pascagoula, MS) remain viable, a competitive acquisition strategy can be used to procure the DDG 1000 follow ships and the future surface combatant ships (i.e. CG(X)) in the desired quantities without a "winner take all" competition option. It is important for the Navy to have acquisition options for these future surface combatants in order to solicit competitive bids for best market prices, utilize innovative approaches and gain the benefit of other ideas resulting from both collaborative design and competitive production environments. The dual shipyard acquisition strategy provides significant benefits to both the Navy and the industrial base and is critical to maintaining long term surface combatant program affordability.

3.0 BACKGROUND

The DDG 1000 is the center piece of the Navy's surface combatant acquisition program to support the 21st century warfighting requirements. The multi-mission DDG 1000 Destroyer (ZUMWALT Class) is currently a seven-ship program with two split-funded ships budgeted in FY 2007/08 and one ship budgeted in each year between FY 2009-2013 (see Table 1).

Congress approved the President's Budget request of $2,568M for FY 2007. The FY 2007 Budget is in addition to $1,010M of previous years Advance Procurement funding (FY 2005 – FY 2006). To complete construction of the two FY 2007 DDG 1000 Class ships, subsequent year funding is required in FY 2008 and will be addressed during the FY 2008 President's Budget development process.

Table 1: PB07 Ship Build Plan

	Dual (Lead) Ships	Follow Ships					
Program	2007	2008	2009	2010	2011	2012	2013
DDG 1000	2	0	1	1	1	1	1

The DDG 1000 dual lead ship acquisition strategy was approved via a Milestone B decision on November 23, 2005 by the DAE, Under Secretary of Defense, Acquisition Technology & Logistics (USD (AT&L)), allowing the program to enter the System Development and Demonstration Phase. The Milestone B Acquisition Decision Memorandum allowed the Navy to award detail design contracts, and directed the program to return for a program review with the DAE prior to exercising contract options for ship construction. ASN (RD&A) approved a Class Justification and Approval for this acquisition on February 16, 2006 pursuant to the authority of 10 U.S.C. 2304(c)(3), which provided for other than full and open competition when necessary to award a contract to a particular source to achieve industrial mobilization. The program awarded the detail design contracts to Northrop Grumman Ship Systems and General Dynamics Bath Iron Works in August 2006. The detail design contracts are structured in accordance with the acquisition plan and program schedule as supported by the FY 2007 President's Budget request. The involvement of both shipbuilders in the detail design process will increase their understanding of the basic design, enabling significant producibility improvements and a more stable design.

In accordance with the Milestone B decision, the DDG 1000 Program completed a review by the Defense Acquisition Board (DAB) on October 4, 2006, and received approval to continue with contract negotiations for construction of the two lead ships of the ZUMWALT Class. The Navy intends to award the ship construction contracts during the second quarter of FY 2007. Start of major fabrication at the two shipyards is planned to begin in summer 2008. This synchronizes the start of fabrication, providing the Navy an opportunity to establish a basis for competition for the follow ships currently budgeted in FY 2009 and out. The Navy is confident this strategy will promote cooperative and collaborative completion of detail design, and will give the Navy information and options for future acquisition strategy decisions.

4.0 COMPETITION PLAN FOR DDG 1000 FOLLOW SHIP PROCUREMENT

The Navy is committed to a dual lead ship acquisition strategy and recognizes the importance of sustaining two surface combatant shipbuilders. The dual lead ship acquisition strategy is designed to maintain competitive surface combatant shipbuilding industrial base that will provide affordable ships that meet the current and future needs of the Navy. These two shipbuilders (Northrop Grumman Ship Systems (NGSS) and General Dynamics Bath Iron Works (BIW)) are both highly qualified, highly capable shipyards. They have exhibited the financial strength, resources (plant facilities and manpower), capacity, experience, skills, and the overall viability to successfully construct

DDG 1000 ships. Maintaining the unique shipbuilding skills and knowledge at the surface combatant shipyards provides a means of ensuring the best value to the Navy in current and future procurements.

The Navy is committed to seeing that both shipbuilders remain viable to ensure that a competitive acquisition strategy can be used to procure the FY 2009-2013 DDG 1000 follow ships and future surface combatant ships (i.e., CG(X)) in the desired quantities. It is important for the Navy to have choices for these future surface combatants in order to solicit competitive bids, execute innovative production approaches and gain the benefit of other ideas resulting from a competitive environment. The dual shipyard acquisition strategy provides significant benefits to both the Navy and the industrial base and is the primary rationale for maintaining program affordability.

4.1 Range of Possible Outcomes:

The Navy established a senior-level working group in early 2006 to review the follow ships acquisition strategy to address contractual, financial and programmatic concerns. The objective is to provide for a stable, competitive industrial base to support future shipbuilding and Mission Systems Equipment (MSE) procurements. This working group solicited and received input from the shipbuilders in May/June 2006.

The ongoing review takes into consideration several factors including the current and future workload at each surface combatant shipyard and how such workload impacts the industrial base. The lead ship construction workshare agreements currently being negotiated will impact the overall shipyard workloads. It is the Navy's desire to minimize shipyard workforce fluctuations and maintain stability at each shipyard by providing a firm business base. The timely award of DDG 1000 lead ships and subsequent follow ships is instrumental in providing sufficient industrial base workload stability.

Before establishing a contracting strategy for follow ships, the Navy is assessing and analyzing recent shipyard cost and schedule performance for ships currently under construction at both shipyards. The Navy will assess shipbuilder progress towards major milestones, cost and schedule variances and assess impacts of new producibility initiatives on performance. As a result of Hurricane Katrina, uncertainty remains concerning how NGSS will distribute the future workload between Avondale and Ingalls. Additional time is required for the Navy to adequately assess these workload impacts.

As an ACAT 1D Program, the DDG 1000 acquisition strategy needs to be approved through the DAE. At the recent DAE review (October 2006), the Navy presented the following potential alternatives for follow ship procurement:

- two ship competition in FY 2009; three ship competition in FY 2011
- three ship competition in FY 2009; two ship competition in FY 2012
- single solicitation for a four ship Profit Related to Offers (PRO) with option for FY 2013 ship.

While the selection of a specific acquisition strategy may not be limited to these alternatives, they are representative of the most likely scenarios. All three alternatives could be executed as annual plus option contract awards in FY 2009. Subsequent contract awards would be candidates for Multi-year procurements (MYPs). All three alternatives could be implemented using a dual source limited competition strategy, or a PRO contracting strategy, to maintain competitive pricing pressure without resorting to a "winner take all" strategy. In the dual source limited competition strategy, each shipyard receives at least one ship, with the competition to establish who receives the larger share of workload. In the PRO strategy, the contractors compete for their target profit based upon their offers. These approaches are discussed in more detail in Section 4.4.

4.2 Navy's Estimated Cost for the Respective Ships:

Respective ship cost estimates will be updated with submission of the FY 2008 President's Budget request. The Navy is committed to meet the Congressional cost goal established for the dual lead ships ($6.582B) and the cost cap ($2.3B) for the 5th ship. The Navy intends to incorporate the GAO recommendations identified in their report "Improved Practices Could Help Minimize Cost Growth in Navy Shipbuilding Programs" to ensure realistic prices for ship construction contracts and early recognition of cost issues are achieved. In particular, the Navy will ensure that:

- pricing for construction of the lead ship is negotiated separately from the pricing of detail design
- pricing of follow ships is separate from pricing of lead ships
- shipbuilders are required to submit monthly cost performance reports
- shipbuilders are required to prepare variance analysis reports that identify root causes of reported variances, associated mitigation efforts, and future cost impacts.

Historically, new classes of ships (i.e., DDG 1000 Class) that incorporate new designs and new technologies create uncertainties in the cost. Therefore, the Navy has separated the negotiation of the lead ships from the follow ships. The Navy will also have initial return cost performance from the lead ships before negotiations begin on the follow ships. The Navy will make use of knowledge gained during detail design and construction to negotiate prices for follow ships.

Innovative strategies have been created to reduce overall acquisition costs to achieve the dual lead ships cost goal and the 5th ship cost cap. The Navy and the DDG 1000 industry team are using a thorough design-to-cost process to pursue every opportunity to reduce cost on DDG 1000 without reducing critical mission performance. The DDG 1000 Design/Build Strategy process integrates the efforts early in the design process of all stakeholders to minimize work content, simplify design and standardize material and manufacturing processes. A key enabler of this strategy is the program's use of a Collaboration Center which maximizes design cooperation, communication and partnership by co-locating the Navy with the program's five prime contractors. The Design/Build Strategy also leverages the use of the CATIA V5 Computer-Aided Design tool, which provides three dimensional visibility early in the design process. The DDG

1000 Program's use of a single integrated data environment used by all designers further facilitates design integration by providing an authoritative central repository for all program data.

The Design/Build Strategy has developed several products and manufacturing processes which will result in a producible and more efficient design. Through a Parts Standardization initiative, the DDG 1000 Program has reduced by 25 percent the use of general material items and catalogued them in a Common Parts Catalog saving the program millions of dollars by reducing the number of parts. The program employs a single buyer approach for the procurement of all Class Common Equipment ensuring a common design and reduced costs through larger lot buys. Both shipbuilders have collaboratively developed Craft Memoranda of Understanding to design, share and document common manufacturing preferences and agree to standardize manufacturing practices in 89 different areas covering all shipbuilding trades. By integrating craftsmen early in the design process, both of these initiatives will reduce manufacturing costs and optimize product quality. Finally, the Mission System Integrator is incrementally delivering mission systems design information to the shipbuilders.

In order to prove out the Design/Build Strategy, each shipbuilder is accelerating the design and manufacture of a main machinery block. This unique initiative will also validate that each shipbuilder can manufacture using the other shipbuilder's design. Each shipbuilder will manufacture a machinery block to the extent that it demonstrates detail design processes, material procurement manufacturing processes, and craft labor costs and quality. The Navy will closely manage each shipbuilder's cost, schedule and quality performance throughout this initiative and aggressively apply "lessons learned" to the overall Design/Build process.

There are numerous examples of producibility initiatives that have been incorporated into the DDG 1000 design. Increased deck heights allow for straighter pipe runs and increased access for shipyard craftsmen to pull cable and install pipe and ventilation ducting. The design features the use of multiple modular system-level components such as Electronic Modular Enclosures, Advanced Gun System magazines, Equipment "rafts" and a modular Anchor and Steering system. This approach provides for off-ship construction and test and "turn-key" integration within the ship construction process resulting in reduced costs and increased quality. The DDG 1000 design replaces miles of tin ventilation ducting with a flexible, lighter-weight fabric design that reduces weight and cost but also greatly improves shipboard quality-of-life. Weld joint designs and welding procedures have been optimized for high productivity and enhanced survivability for manufacturing large marine structures like the Peripheral Vertical Launch System. The composite deckhouse is joined with the rest of the steel ship by a producible and cost-effective adhesive bond which projects to significantly reduce both manufacturing cost and ship weight.

The Navy has been successful in removing significant costs from the DDG 1000 dual lead ships and follow ships without reducing critical mission performance. These initiatives (described in this section: "Navy's Estimated Cost for the Respective Ships")

will help the DDG 1000 Program meet the cost goal established for the dual lead ships and the Congressional cost cap associated with the 5th ship.

4.3 Estimated Cost Benefit Provided By Competition:

Competition fosters an atmosphere of creativity and innovation, and encourages the development of new processes to improve performance, reduce costs, and construct ships in a more effective manner. Both shipyards that construct surface combatants have invested significantly to upgrade facilities. BIW constructed a Land Level Transfer Facility (LLTF) and NGSS modernized their panel line and other facilities to improve productivity and remain competitive. These investments, in each shipyard's respective facility, have had a positive effect in reducing the labor-hours and ultimately the cost required to construct ships.

The Navy will prepare cost comparisons for each of the competition options that are ultimately considered. These cost comparisons will in part be based on the results of the dual lead ships negotiations and awards. However, the DDG 51 Program offers an analogy for the successful use of PRO. The DDG 51 Program office used competition between shipyards, executing multiple acquisition strategies to control cost over the course of the shipbuilding program. The FY 1985-1993 ships were awarded in a traditional "compete for work" strategy. In FY 1994, the Navy solicited pricing from both shipbuilders to construct two of the three ships appropriated for that year. However, the Navy concluded the prices bid by each shipyard would lead to unprofitable contracts for the shipbuilders. After numerous alternatives were considered, the Navy opted to combine the procurement of the three FY 1994 DDG 51s with the three FY 1995 DDG 51s and equally allocate three DDG 51s to each shipbuilder at negotiated prices. The downward pressure on cost to the Government due to competition was lost under this "negotiated allocation" strategy. A study sponsored by ASN(RD&A) on DDG 51 Program Acquisition recommended that the Navy explore contracting strategies that reduced the price to the government and retained the benefits of competitive forces on FY 1996/1997 ships. The PRO acquisition strategy was determined to be the approach to meet these challenges.

The PRO concept is a competitive allocation procurement strategy tailored to a dual source production program. Under PRO, contractors compete for a target profit based on their offer. The lowest cost bidder is awarded a contract at its proposed target cost and receives a higher target profit percentage (this profit percentage is specified in the Request for Proposal (RFP)). The losing bidder is awarded a contract at its proposed target cost, but the loser's target profit is set to a lower percentage than the winner's. The losing profit percentage is a function of the difference between the losing bid and the winning bid; the bigger the difference between the bids, the lower the loser's target profit. The formula for deriving the loser's target profit is specified in the RFP. With the PRO concept used to award the FY 1996 and FY 1997 ships, the DDG 51 Program realized a savings of approximately $264M across all six ships.

Two shipyards provide the Navy with increased procurement flexibility by offering greater choice, particularly with respect to future ships. There have been numerous studies that have demonstrated that the cost of initiating competitive sourcing is more

than offset by lower bids and savings from competition inspired improvements in technology, manufacturing processes, procurement, and business practices.

4.4 Basis for Determining Contract Award:

The basis for award for the ultimately selected acquisition strategy, including for the three representative options discussed in Section 4.1 of this report, will be best value to the Navy. The two most likely competitive strategies for contract award for follow ship acquisition are a dual source limited competition strategy and a PRO strategy. Other strategies may also be considered during acquisition strategy deliberations.

Under the dual source limited competition strategy, each shipyard receives at least one ship. A competition is held to establish the winner who will receive a larger share of the workload. Dual source limited competition strategy has had the drawback of forcing the winning shipyard to submit a lower bid. This results in the "winning" yard receiving a minimal return, while the "losing" yard might receive a better return by submitting higher bids. This strategy provides low cost to the Navy but with lower costs come an increased risk of loss contracts. As a result, the Navy has concerns that this strategy may curtail contractors' capital expenditures as a result of small profit percentages (especially at the winning yard) impacting future productivity improvements. In addition, this competitive approach may not provide sufficient consideration to workload at the surface combatant shipyards.

The second strategy is a competitive, dual source allocation of work. Each shipbuilder receives one half of the total requirement of ships. Competitive pressure is maintained through a PRO procurement strategy. PRO is a competitive allocation procurement strategy tailored to a dual source production program. Under the PRO concept, the contractors compete for a target profit based on their offer. The winner (lowest bid) receives greater profit percentage than the loser (highest bid). This strategy has been successfully implemented on other surface combatant programs. PRO has resulted in higher prices to the Navy than traditional compete for work acquisition strategies, but has enabled the shipbuilders to bid reasonable costs, to earn a profit, and be guaranteed workshare that provides industrial base stability.

4.5 Type of Contract Planned for the Award:

Regardless of acquisition strategy, it is the Navy's current desire to award the DDG 1000 Class follow ships via a Fixed Price Incentive contract with shareline provisions. These contracts will have a cost ceiling and the primary cost incentive to the shipbuilder to execute within established contract cost parameters is the shareline provision. The shareline provision has historically been a very strong cost incentive for the shipbuilders and provides equitable risk between the government/contractor. The Navy will investigate the use of award fees as incentive in follow contracts as well. The purpose of the award fee is to provide additional incentive to the shipbuilder to achieve performance that benefits the Navy. The award fee provision provides timely and material feedback and is intended to focus the shipbuilder on technical and management performance and reward them for performance above acceptable levels. The Navy will also ensure that the contracts contain milestone based incentives to ensure financial returns are tied to

measurable progress consistent with commitments agreed to in production plans. The terms and conditions used in the follow ship contracts will have the primary and over-riding objective to establish cost control, maintain schedule integrity, and provide sufficient workload to maintain the industrial base.

4.6 Potential Impact of Follow Ship Awards on the Lead Ship Costs or Schedules

A consistent and steady procurement rate in a competitive environment allows the industry to size itself in the most cost-effective manner. Fluctuation in workload impacts the ability of shipyards to build ships at their optimum efficiency. Without the workload associated with the follow ships, the surface combatant shipyards fixed overhead would be spread over a reduced number of ships. This would drive up overhead rates and the costs of all ships under construction (including the DDG 1000 dual lead ships). The shipyards would also attempt to stretch out DDG 1000 lead ship production schedules to bridge the gap until CG(X) construction begins (this would exacerbate the overhead issue and further drive up lead ship costs). This effort would be undertaken to avoid the costly process of laying off employees in the short term and rehiring as future work becomes available. This instability in the workforce creates inefficiencies and is likely to happen if the follow ships are not awarded. It is not feasible to assume that the shipyards would be able to bridge the construction gap between the DDG 1000 lead ships and the CG(X) Program.

5.0 SUMMARY

The DDG 1000 Program is committed to maintaining two shipbuilders and to ensure competition, thereby maximizing long-term cost reductions by incentivizing shipbuilders to invest in capital improvements, while maintaining quality and schedule. Competition will be the primary instrument used by the Navy to meet the Congressional goals and cost caps established on DDG 1000 Class ships. Further study and analyses must be conducted before the basis for determining contract award and the type of contract to be used can be finalized. Upon completion of a thorough review, the Navy will determine the best, most cost effective contract strategy to implement on the DDG 1000 Class follow ships. The goal of the contract strategy will be to maintain the industrial base; provide workload stability; retain competitive pressures; achieve realistic profits for the shipbuilders; and aggressively pursue cost reduction initiatives to ensure cost caps are met.

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 04 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees, not later than 30 days prior to lead ship contract(s) award, a report on the competition plan for DDG 1000 follow ship procurement.

The Navy remains sensitive to the importance of maintaining the unique skills, knowledge, and capabilities at both of the shipyards producing the DDG 1000 Class – General Dynamics Bath Iron Works in Bath, Maine, and Northrop Grumman Ship Systems in Pascagoula, Mississippi. The Navy also believes it is highly desirable and possible to employ a competitive acquisition strategy for the DDG 1000 follow ships without resorting to a "winner take all" competition. Competition maintains pressure to achieve best market prices, encourages industry capital investment, and fosters innovation. The enclosed report describes potential competitive strategies under consideration.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Skelton, and Levin.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 04 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees, not later than 30 days prior to lead ship contract(s) award, a report on the competition plan for DDG 1000 follow ship procurement.

The Navy remains sensitive to the importance of maintaining the unique skills, knowledge, and capabilities at both of the shipyards producing the DDG 1000 Class – General Dynamics Bath Iron Works in Bath, Maine, and Northrop Grumman Ship Systems in Pascagoula, Mississippi. The Navy also believes it is highly desirable and possible to employ a competitive acquisition strategy for the DDG 1000 follow ships without resorting to a "winner take all" competition. Competition maintains pressure to achieve best market prices, encourages industry capital investment, and fosters innovation. The enclosed report describes potential competitive strategies under consideration.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 04 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees, not later than 30 days prior to lead ship contract(s) award, a report on the competition plan for DDG 1000 follow ship procurement.

The Navy remains sensitive to the importance of maintaining the unique skills, knowledge, and capabilities at both of the shipyards producing the DDG 1000 Class – General Dynamics Bath Iron Works in Bath, Maine, and Northrop Grumman Ship Systems in Pascagoula, Mississippi. The Navy also believes it is highly desirable and possible to employ a competitive acquisition strategy for the DDG 1000 follow ships without resorting to a "winner take all" competition. Competition maintains pressure to achieve best market prices, encourages industry capital investment, and fosters innovation. The enclosed report describes potential competitive strategies under consideration.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Levin, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 04 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees, not later than 30 days prior to lead ship contract(s) award, a report on the competition plan for DDG 1000 follow ship procurement.

The Navy remains sensitive to the importance of maintaining the unique skills, knowledge, and capabilities at both of the shipyards producing the DDG 1000 Class – General Dynamics Bath Iron Works in Bath, Maine, and Northrop Grumman Ship Systems in Pascagoula, Mississippi. The Navy also believes it is highly desirable and possible to employ a competitive acquisition strategy for the DDG 1000 follow ships without resorting to a "winner take all" competition. Competition maintains pressure to achieve best market prices, encourages industry capital investment, and fosters innovation. The enclosed report describes potential competitive strategies under consideration.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

APR 30 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In my letter of January 30, 2007, I advised that the Navy intended to submit this report no later than May 4, 2007. On March 15, the Navy announced its recommended way ahead for the LCS program. With the approval of the Office of the Secretary of Defense (OSD) and of the Congress, the Navy is recommending deferral of procurement in FY 2007 and use of those funds to complete the construction of LCS 1, 2, and 4, and a reduced procurement of existing designs in FY 2008 and 2009. The Navy intends to down select to a single sea frame design in FY 2009 following developmental and operational testing of the two lead ships and consideration of other relevant factors. The Navy intends to conduct a full and open competition for production of the Navy design in FY 2010.

The Navy will require approval of its revised acquisition strategy from OSD prior to Milestone B, which is tentatively planned for the fourth quarter of FY 2007. Solicitation for FY 2008 procurement will occur after Milestone B approval. As such, the Navy intends to submit this report prior to seeking Milestone B approval.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

APR 30 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In my letter of January 30, 2007, I advised that the Navy intended to submit this report no later than May 4, 2007. On March 15, the Navy announced its recommended way ahead for the LCS program. With the approval of the Office of the Secretary of Defense (OSD) and of the Congress, the Navy is recommending deferral of procurement in FY 2007 and use of those funds to complete the construction of LCS 1, 2, and 4, and a reduced procurement of existing designs in FY 2008 and 2009. The Navy intends to down select to a single sea frame design in FY 2009 following developmental and operational testing of the two lead ships and consideration of other relevant factors. The Navy intends to conduct a full and open competition for production of the Navy design in FY 2010.

The Navy will require approval of its revised acquisition strategy from OSD prior to Milestone B, which is tentatively planned for the fourth quarter of FY 2007. Solicitation for FY 2008 procurement will occur after Milestone B approval. As such, the Navy intends to submit this report prior to seeking Milestone B approval.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Levin, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

APR 30 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In my letter of January 30, 2007, I advised that the Navy intended to submit this report no later than May 4, 2007. On March 15, the Navy announced its recommended way ahead for the LCS program. With the approval of the Office of the Secretary of Defense (OSD) and of the Congress, the Navy is recommending deferral of procurement in FY 2007 and use of those funds to complete the construction of LCS 1, 2, and 4, and a reduced procurement of existing designs in FY 2008 and 2009. The Navy intends to down select to a single sea frame design in FY 2009 following developmental and operational testing of the two lead ships and consideration of other relevant factors. The Navy intends to conduct a full and open competition for production of the Navy design in FY 2010.

The Navy will require approval of its revised acquisition strategy from OSD prior to Milestone B, which is tentatively planned for the fourth quarter of FY 2007. Solicitation for FY 2008 procurement will occur after Milestone B approval. As such, the Navy intends to submit this report prior to seeking Milestone B approval.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

APR 30 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In my letter of January 30, 2007, I advised that the Navy intended to submit this report no later than May 4, 2007. On March 15, the Navy announced its recommended way ahead for the LCS program. With the approval of the Office of the Secretary of Defense (OSD) and of the Congress, the Navy is recommending deferral of procurement in FY 2007 and use of those funds to complete the construction of LCS 1, 2, and 4, and a reduced procurement of existing designs in FY 2008 and 2009. The Navy intends to down select to a single sea frame design in FY 2009 following developmental and operational testing of the two lead ships and consideration of other relevant factors. The Navy intends to conduct a full and open competition for production of the Navy design in FY 2010.

The Navy will require approval of its revised acquisition strategy from OSD prior to Milestone B, which is tentatively planned for the fourth quarter of FY 2007. Solicitation for FY 2008 procurement will occur after Milestone B approval. As such, the Navy intends to submit this report prior to seeking Milestone B approval.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Skelton, and Levin.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 30 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report is to identify several very important and detailed matters, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

In my letter of November 16, 2006, I advised that the Navy intended to submit this report in conjunction with the FY 2008 President's Budget request. Subsequently, the Navy has determined that there are significant cost overruns on the LCS 1 contract with Lockheed Martin (LM). On January 12, 2007, the Navy issued a 90-day stop-work order on LM's second LCS ship (LCS 3) while examining the root causes of the cost growth and determining an appropriate course of action. This review will include examination of acquisition strategy options for the FY 2007 and follow ships. As such, the Navy now intends to submit this report no later than May 4, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 30 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report is to identify several very important and detailed matters, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

In my letter of November 16, 2006, I advised that the Navy intended to submit this report in conjunction with the FY 2008 President's Budget request. Subsequently, the Navy has determined that there are significant cost overruns on the LCS 1 contract with Lockheed Martin (LM). On January 12, 2007, the Navy issued a 90-day stop-work order on LM's second LCS ship (LCS 3) while examining the root causes of the cost growth and determining an appropriate course of action. This review will include examination of acquisition strategy options for the FY 2007 and follow ships. As such, the Navy now intends to submit this report no later than May 4, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Levin, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 30 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report is to identify several very important and detailed matters, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

In my letter of November 16, 2006, I advised that the Navy intended to submit this report in conjunction with the FY 2008 President's Budget request. Subsequently, the Navy has determined that there are significant cost overruns on the LCS 1 contract with Lockheed Martin (LM). On January 12, 2007, the Navy issued a 90-day stop-work order on LM's second LCS ship (LCS 3) while examining the root causes of the cost growth and determining an appropriate course of action. This review will include examination of acquisition strategy options for the FY 2007 and follow ships. As such, the Navy now intends to submit this report no later than May 4, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
Research Development and Acquisition
1000 Navy Pentagon
Washington DC 20350-1000

JAN 30 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report is to identify several very important and detailed matters, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

In my letter of November 16, 2006, I advised that the Navy intended to submit this report in conjunction with the FY 2008 President's Budget request. Subsequently, the Navy has determined that there are significant cost overruns on the LCS 1 contract with Lockheed Martin (LM). On January 12, 2007, the Navy issued a 90-day stop-work order on LM's second LCS ship (LCS 3) while examining the root causes of the cost growth and determining an appropriate course of action. This review will include examination of acquisition strategy options for the FY 2007 and follow ships. As such, the Navy now intends to submit this report no later than May 4, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Skelton, and Levin.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000

NOV 16 2006

The Honorable John Warner
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees no later than December 1, 2006 a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report identifies several very important and detailed matters to be addressed by the Navy, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

The Navy is continuing the detailed analysis required to complete this report, and will not be able to submit the report by December 1, 2006. The Navy intends to submit this report in conjunction with the FY 2008 President's Budget request on February 5, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Stevens, Hunter, and Young.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Carl Levin
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000

NOV 16 2006

The Honorable Duncan L. Hunter
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees no later than December 1, 2006 a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report identifies several very important and detailed matters to be addressed by the Navy, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

The Navy is continuing the detailed analysis required to complete this report, and will not be able to submit the report by December 1, 2006. The Navy intends to submit this report in conjunction with the FY 2008 President's Budget request on February 5, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Stevens, Warner, and Young.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Ike Skelton
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000

NOV 16 2006

The Honorable Ted Stevens
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees no later than December 1, 2006 a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report identifies several very important and detailed matters to be addressed by the Navy, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

The Navy is continuing the detailed analysis required to complete this report, and will not be able to submit the report by December 1, 2006. The Navy intends to submit this report in conjunction with the FY 2008 President's Budget request on February 5, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Warner, Hunter, and Young.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Daniel K. Inouye
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000

NOV 16 2006

The Honorable C. W. Bill Young
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The FY 2007 Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit to the Congressional Defense Committees no later than December 1, 2006 a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

The report identifies several very important and detailed matters to be addressed by the Navy, including the competition plan, the flight strategy, and the cost containment strategy for the program; a clear representation of all research and development and procurement costs for the total program; and an assessment of added life cycle costs associated with operation and support for two dissimilar Flight 0 LCS designs.

The Navy is continuing the detailed analysis required to complete this report, and will not be able to submit the report by December 1, 2006. The Navy intends to submit this report in conjunction with the FY 2008 President's Budget request on February 5, 2007.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Stevens, Hunter, and Warner.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable John P. Murtha
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 2, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Under Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide for funding the Navy's long-range construction plan. The enclosed long-range plan provides a detailed program for the construction of combatant and support vessels over the next 30 fiscal years.

In the FY 2008 Annual Long-Range Shipbuilding Report, there has been no change in FY 2008 procurement plans since the FY 2007 report was submitted. The changes made within the Future Years Defense Program have been minimal and focused on fact-of-life requirements. This report reflects the Navy's continuing effort to improve the overall affordability and feasibility of its shipbuilding plan.

There is an ongoing investigation regarding cost overruns in the Littoral Combat Ship (LCS) program. At this time, I do not believe that the status of the LCS program necessarily will have a material impact on the ability to sustain the naval vessel force structure specified in the FY 2008 annual plan. I expect to have more insight into LCS within the next two months.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 2, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Under Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide for funding the Navy's long-range construction plan. The enclosed long-range plan provides a detailed program for the construction of combatant and support vessels over the next 30 fiscal years.

In the FY 2008 Annual Long-Range Shipbuilding Report, there has been no change in FY 2008 procurement plans since the FY 2007 report was submitted. The changes made within the Future Years Defense Program have been minimal and focused on fact-of-life requirements. This report reflects the Navy's continuing effort to improve the overall affordability and feasibility of its shipbuilding plan.

There is an ongoing investigation regarding cost overruns in the Littoral Combat Ship (LCS) program. At this time, I do not believe that the status of the LCS program necessarily will have a material impact on the ability to sustain the naval vessel force structure specified in the FY 2008 annual plan. I expect to have more insight into LCS within the next two months.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 2, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Under Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide for funding the Navy's long-range construction plan. The enclosed long-range plan provides a detailed program for the construction of combatant and support vessels over the next 30 fiscal years.

In the FY 2008 Annual Long-Range Shipbuilding Report, there has been no change in FY 2008 procurement plans since the FY 2007 report was submitted. The changes made within the Future Years Defense Program have been minimal and focused on fact-of-life requirements. This report reflects the Navy's continuing effort to improve the overall affordability and feasibility of its shipbuilding plan.

There is an ongoing investigation regarding cost overruns in the Littoral Combat Ship (LCS) program. At this time, I do not believe that the status of the LCS program necessarily will have a material impact on the ability to sustain the naval vessel force structure specified in the FY 2008 annual plan. I expect to have more insight into LCS within the next two months.

A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 2, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Under Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide for funding the Navy's long-range construction plan. The enclosed long-range plan provides a detailed program for the construction of combatant and support vessels over the next 30 fiscal years.

In the FY 2008 Annual Long-Range Shipbuilding Report, there has been no change in FY 2008 procurement plans since the FY 2007 report was submitted. The changes made within the Future Years Defense Program have been minimal and focused on fact-of-life requirements. This report reflects the Navy's continuing effort to improve the overall affordability and feasibility of its shipbuilding plan.

There is an ongoing investigation regarding cost overruns in the Littoral Combat Ship (LCS) program. At this time, I do not believe that the status of the LCS program necessarily will have a material impact on the ability to sustain the naval vessel force structure specified in the FY 2008 annual plan. I expect to have more insight into LCS within the next two months.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy:
The Honorable Duncan L. Hunter
Ranking Minority Member

Report to Congress on
Annual Long-Range Plan for Construction of
Naval Vessels for FY 2008

Prepared by:
Director, Warfare Integration (OPNAV N8F)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

February 2007

Annual Long-Range Plan for Construction of Naval Vessels for FY 2008

I. Reporting Requirement

This report is submitted in accordance with Chapter 9, Section 231 of Title 10 United States Code, which requires the Secretary of Defense to submit with the Defense Budget, an annual long-range plan for the construction of naval vessels that includes the following:

(a) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN AND CERTIFICATION – The Secretary of Defense shall include with the defense budget materials for a fiscal year:

(1) A plan for the construction of combatant and support vessels for the Navy developed in accordance with this section; and

(2) A certification by the Secretary that both the budget for that fiscal year and the future-years defense program provide for funding of the construction of naval vessels at a level that is sufficient for the procurement of the vessels provided for in the plan.

(b) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN – Each such naval vessel construction plan shall contain the following:

(1) A detailed program for the construction of combatant and support vessels for the Navy over the next 30 fiscal years.

(2) A description of the necessary naval vessel force structure to meet the requirements of the national security strategy of the United States or the most recent Quadrennial Defense Review (*QDR*).

(3) The estimated levels of annual funding necessary to carry out the program, together with a discussion of the procurement strategies on which such estimated levels of annual funding are based.

(c) ASSESSMENT WHEN VESSEL CONSTRUCTION BUDGET IS INSUFFICIENT TO MEET APPLICABLE REQUIREMENTS – If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is not sufficient to sustain the naval vessel force structure specified in the naval vessel construction plan for that fiscal year under subsection (a), the Secretary shall include an assessment that describes and discusses the risks associated with the reduced force structure of naval vessels that will result from funding naval vessel construction at such a level.

II. Submission of the Report

In the FY 2007 report, the Chief of Naval Operations presented the Navy's requirements for a force of about 313 ships and indicated that the submission of this report for the FY 2008 President's Budget would include a more complete assessment of the long-range shipbuilding plan necessary to support this effort. In the current report, the Navy has laid out a plan that fully addresses the long-term build rates, fiscal constraints, industrial base capacity, Global War on Terrorism (GWOT) and other evolving requirements that impact the plan and have provided an executable "way ahead" to achieve the long-term goals of this structure. The 313-ship force is designed to field the necessary capabilities to meet a FY 2020 threat.

The Chief of Naval Operations has focused on both the stability and affordability of the Navy's long-range shipbuilding plan. The Navy's commitment to provide a stable shipbuilding profile is reflected in the commitment to the individual ship build rates and specific classes included in the near-term of the FY 2007 plan. Consequently, there have been no changes in the Navy's force structure requirements in this FY 2008 report. As stated in last year's plan, the Navy has looked very hard at the out-year requirements with a view toward providing industry with an executable plan upon which they can rely in making their plans for modernizing their facilities and improving their production processes. Therefore, slight adjustments have been made in long-range procurement plans to balance requirements with affordability and industrial base stability. The Navy's FY 2008 report reflects the rigorous analysis of the challenges the nation faces, the sets of capabilities needed to meet them, and the risk that can be reasonably assumed.

III. Background

Because of the complex configuration and size of naval vessels, design time can range from two to seven or more years; similarly, construction time can also span several years; and acquisition costs can be substantial. Given the capital investment required, principal naval vessels are procured at relatively low rates and a naval vessel's expected service life is comparatively long: 25 years for smaller ships and up to 40-50 years for ballistic missile submarines and nuclear-powered aircraft carriers. As a result, 30-40 years are required to make a substantial change in the Navy's force structure. With this in mind, the Navy uses a planning approach that incorporates three specific phases reflecting the appropriate focus for each time period. These phases are:

Near-Term: This period includes the current budget year and future years defense plan (FYDP). During this phase, the Navy endeavors to minimize adjustments to the plan to balance the mix of ships, unit cost, and resources available in the budget, while addressing industrial and vendor base concerns. Given known requirements and quantities, the cost estimates are reasonably accurate. No changes have been made for FY 2008 procurements since submission of the FY 2007 report.

Mid-Term: This period is beyond the FYDP out to approximately 10 to 15 years. Requirements are based on Defense-wide planning scenarios and incorporate intelligence assessments of future threats and operating environments. Cost estimates are representative based on delivering ship classes started in the near-term.

Far-Term: This period begins 15 or more years in the future. Because the requirements are not clear, the number and type of ships are estimated based on Joint and internal Navy analytical efforts. Cost estimates in this period are notional due to uncertainties in operational requirements, quantities, business conditions, and other uncertainties associated with the shipbuilding industry.

This comprehensive long-range shipbuilding plan seeks to ensure the Navy's force structure meets its operational requirements in terms of capability and capacity. The plan also addresses overall force affordability and industrial base stability. The three aspects of the Navy's plan - requirements, cost, and stability are key and provide the demand signal to industry. The Navy is attempting to address all three elements in providing a reliable and executable long-range plan for the nation's shipbuilding industrial base.

IV. Force Structure Requirement

A. Quadrennial Defense Review

The *FY 2006 Quadrennial Defense Review* (*QDR 06*) developed operational guidance for the national defense and national military strategies and for shaping the future force to improve capabilities and expand capacity to address four priorities:

- Defeat Terrorist Extremists
- Defending the Homeland in Depth
- Shaping the Choices of Countries at Strategic Crossroads
- Preventing Hostile State and Non-state Actors from Acquiring or Using Weapons of Mass Destruction (WMD)

QDR 06 sets a twenty-year course for the Department of Defense and provides an opportunity to continue to reshape the U.S. armed forces to meet current and emerging security challenges. The *QDR 06* construct places continued emphasis on the unique operational demands associated with homeland defense and the GWOT. It shifts the focus from optimizing for conflicts in two particular regions to building a joint portfolio of capabilities with global reach and serves as a bridge from today's threat-based force to a future capabilities-based transformational force. It is important to note that while the *QDR 06* directs a transition of force posture from global or major regional conflicts to those of the more diverse GWOT missions, it also reflects the necessity to maintain the ability to counter major regional conflicts. With this in mind, the Navy's FY 2008 shipbuilding plan continues to pursue the major investments necessary to sustain its aircraft carriers, submarines and surface combatants required for this level of conflict, while also introducing a long-term strategy for LCS, JHSV and MPF(F) shipping assets that are more suited to the long-war the Nation is currently prosecuting.

B. Force Structure

The future Navy will enhance its seaborne capability with global speed and persistence provided by forward deployed forces supplemented by rapidly deployable forces through the Fleet Response Plan (FRP). To maximize return on investment, the Navy that fights the GWOT and executes Maritime Security Operations will be complementary to the Navy required to fight and win in any Major Combat Operation (MCO). This capabilities-based, threat-oriented Navy can be disaggregated and distributed world wide to support Combatant Commander GWOT demands. The resulting distributed and netted force, working in conjunction with our joint and maritime partners, will provide both actionable intelligence through persistent Maritime Domain Awareness, and the ability to take action where and when a threat is identified. The same force can rapidly aggregate to provide the strength needed to defeat any potential adversary in an MCO. The ships contained in this 30-year shipbuilding plan will sustain operations in forward areas longer, be able to respond more quickly to emerging contingencies, and generate more sorties and simultaneous attacks against greater numbers of multiple targets and with greater affect than the current fleet.

Force structure requirements were developed and validated through detailed joint campaign and mission level analysis, then optimized through innovative sourcing initiatives (e.g., FRP, multi-crewing, and a global maritime posture that effectively increases presence capacity and decreases response time). The Navy's ship force requirement of 313 naval vessels as reflected in Table 1 represents a target level of

capability and capacity necessary to meet the projected warfighting requirements for the FY 2020 time period and is compliant with the *QDR 06* and *Strategic Planning Guidance*.

Table 1. Future Naval Force Structure

Type/Class	Required
Aircraft Carriers	11
Surface Combatants	88
Littoral Combat Ships	55
Attack Submarines	48
Cruise Missile Submarines	4
Ballistic Missile Submarines	14
Expeditionary Warfare Ships	31
Combat Logistics Force	30
Maritime Prepositioning Force (Future)	12
Support Vessels	20
Total Naval Force	313

Note:
Future combat operations may require us to revisit many of the decisions reflected in this report, including those associated with amphibious lift. As the Navy embarks on production of the Maritime Prepositioning Force in this FYDP, the Navy will continue to analyze the utility of these ships in terms of their contribution to, and ability to substitute for, the assault echelon forces in the Navy's future battle-force inventory. The current force represents the best balance between these forces available today. However, changing world events and resulting operational risk associated with the various force structure elements that make up these two components of overall lift will be analyzed to ensure the Navy is not taking excessive risk in lift capability and capacity. While there needs to be a balance between expeditionary and prepositioning ships for meeting the overall lift requirement, future reports may adjust the level of support in one or both of these solutions. Any adjustments made in these capabilities will have to be accommodated in light of the resources available and could require the Navy to commit additional funding to this effort in order to support the overall balance of our shipbuilding program.

V. Naval Vessel Construction Plan

The near-term plan as shown in Table 2 displays the Department of the Navy (DoN) new ship construction procurement and funding plans for FY 2008 and the future years defense plan (FYDP) as reflected in the FY 2008 President's Budget submission.

Table 2. FY 2008-2013 Shipbuilding Budget

	Near Term FY 2008 Plan and FYDP TY $M Qty												Total FY (08-13)	
Ship Type	FY08	Qty	FY09	Qty	FY10	Qty	FY11	Qty	FY12	Qty	FY13	Qty	$ M	Qty
CVN 21[1]	2,848	1	4,471		1,620		465		3,540	1	3,715		16,659	2
SSN 774[2]	2,499	1	3,393	1	3,658	1	3,689	1	4,753	2	4,957	2	22,949	8
DDG 51[3]	78												78	
DDG 1000[1]	2,954		2,463	1	2,501	1	2,265	1	2,370	1	2,065	1	14,618	5
CG(X)							3,234	1			3,064	1	6,299	2
LPD 17[3]	1,399	1	103										1,502	1
LHA(R)[1]	1,377												1,377	
LCS[4]	910	3	1,767	6	1,761	6	1,803	6	1,856	6	1,609	5	9,707	32
T-AKE-CLF[5]	456	1											456	1
MPF(F)- T-AKE[5]			481	1	504	1	523	1					1,508	3
MPF(F)-LMSR[5]			104		986	1	983	1	999	1			3,072	3
MPF(F)- LHA(R)[1,5,6]					1,099	1	1,343				1,133	1	3,575	2
MPF(F)- MLP[5]			1,055	1			880	1			925	1	2,860	3
T-ATF											55	1	55	1
JCC(X)									2,229	1			2,229	1
JHSV[7]			175	1	174	1	182	1					531	3
Total New Construction	**12,522**	**7**	**14,011**	**11**	**12,303**	**12**	**15,368**	**13**	**15,747**	**12**	**17,524**	**12**	**87,475**	**67**

Notes:
1. Navy assumes split funding for large capital ships (aircraft carriers and amphibious ships), and a one-time authority for DDG 1000 dual lead ships (FY07/FY08). FY 2008 CVN 21 funding represents 1st increment of split funding for FY 2008 carrier. FY 2008 DDG 1000 funding represents 2nd increment of split funding for the FY 2007 ships. FY 2008 LHA(R) funding represents 2nd increment of split funding for FY 2007 ship.
2. Increase in funding in FY 2009 - FY 2011 is due to start of Multi-Year Procurement/Economic Order Quantity buy in FY 2009 that includes 2 SSNs per year in FY 2012 and FY 2013 supporting advance procurement.
3. Last year of DDG 51 funding in FY 2008 and LPD 17 funding in FY 2009 represent respective program closeout costs.
4. Does not include LCS mission modules, which are funded in Other Procurement, Navy (OPN).
5. Funded in National Defense Sealift Fund (NDSF).
6. FY 2011 funding represents 2nd increment of split funding for the FY 2010 ship. FY 2013 funding represents 1st increment of split funding for the FY 2014 ship; remaining funds will be budgeted in FY 2014.
7. The JHSV Program is a joint program procuring 5 Army (lead ship in FY 2008) and 3 Navy ships in FY 2009-2011.

VI. Long-Range Naval Vessel Construction Plan

The long-range naval vessel construction plan shown in Table 3 displays the projected procurements over the next 30 years. The ship procurements shown are planned to achieve the force capability outlined earlier in this report. Minor adjustments have been made from the FY 2007 long-range procurement plans in the interest of balancing capability requirements with affordability.

Table 3. FY 2008-2037 Long-Range Naval Vessel Construction Plan

	Near Term						Mid Term							Far Term															
	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Aircraft Carrier	1				1				1					1				1				1					1			
Surface Combatant		1	1	2	1	2	1	2	2	2	2	2	2	2	2	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3
Littoral Combat Ships	3	6	6	6	6	5	6	6	5														1	2	3	4	6	6	6	6
Attack Submarines	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	1	2	1	2	1
Ballistic Missile Submarines												1			1		1	1	1	1	1	1	1	1	1	1	1			
Expeditionary Warfare Ships	1									1	1		1	1	1	2	1	1	2	1	1	2	1	1	1			1		
Combat Logistics Force	1										1		2	2	2	2	2	2	2											
Maritime Prepositioning Force (Future)		2	3	3	1	2																								
Support Vessels		1	1	1	1	1	1	2	1	1			2		2	3	2	1				1	1	1						
Total New Construction Plan	7	11	12	13	12	12	10	12	11	6	6	5	9	8	10	10	10	11	10	7	7	9	9	9	10	9	13	12	11	10

With this FY 2008 report, the Navy continues to move toward steady rate production for each of its ship classes. Stable production rates are reflected in the procurement plans for aircraft carriers, attack submarines, ballistic missile submarines and large-deck amphibious ships. Others, such as guided missile destroyers, will achieve a steady rate of production as legacy platforms are retired in the far-term. Plans for the recapitalization of the OHIO Class submarines that have been converted to SSGN have been deferred until the ships are fully operational and their war fighting utility has been tested.

VII. 30-Year Naval Force Size

The 30-year shipbuilding construction plan presented above results in the ship inventory shown in Table 4 below. The 313-ship force represents a target level of capability and capacity based on a FY 2020 threat assessment. The total inventory of battle force ships and numbers of each type of ship will vary from year to year above and below the 313-ship force target as a result of the complex interaction between retirements, recapitalization, capability, affordability, design and construction time, and industrial base capacity. The Navy continuously evaluates the threat and evolving security environment to determine the necessary forces to meet the challenge.

Table 4. FY 2008-2037 Naval Battle Force Inventory

	Near Term						Mid Term							Far Term															
	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Aircraft Carrier[1]	11	11	11	11	11	10	10	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Surface Combatant	107	109	111	113	112	106	99	93	91	92	93	93	94	95	94	94	94	93	90	90	87	85	83	80	79	79	78	79	80	79
Littoral Combat Ships	4	6	9	15	21	27	33	38	44	50	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	56	56	56
Attack Submarines	52	53	52	52	53	54	51	51	49	49	48	49	47	47	46	46	45	44	43	42	40	40	41	43	44	46	48	49	51	52
Cruise Missile Submarines	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	1										
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	12	12	12	12	12	12	12	12
Expeditionary Warfare Ships	32	31	31	32	33	32	31	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Combat Logistics Force	31	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Mine Warfare Ships	14	14	14	14	14	14	14	14	14	13	13	11	10	7	6	2	1													
Maritime Prepositioning Force (Future)[2]					1	2	3	8	9	10	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Support Vessels	17	17	17	17	18	19	18	18	18	19	20	20	21	21	21	22	22	20	20	21	21	21	21	20	20	20	20	20	20	20
Total Naval Force Inventory	286	289	293	302	310	311	307	311	314	322	329	329	328	326	324	321	319	314	308	306	300	298	296	294	294	296	297	300	303	303

Notes:

1. Aircraft carrier force structure will temporarily decrease to 10 in FY 2013 upon decommissioning of CVN 65 after 52 years of service.
2. Assumes transfer of 1 active fleet LHD from the expeditionary warfare ships to the MPF(F) squadron.

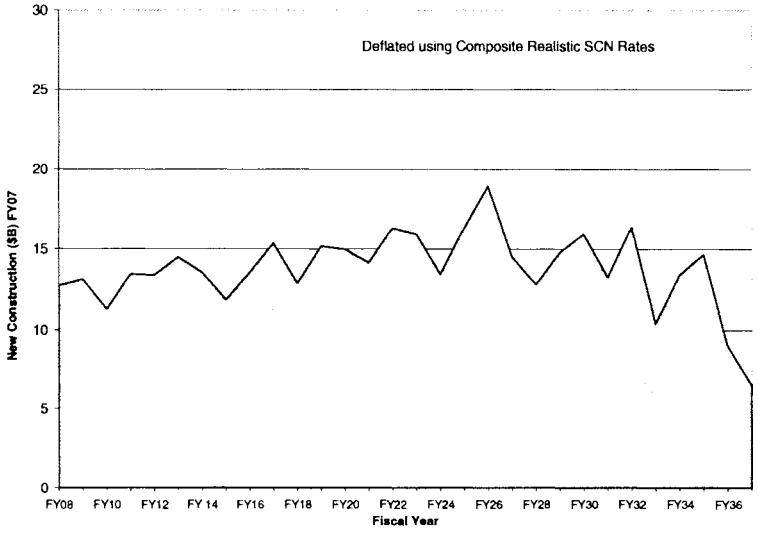
The Navy requirement for aircraft carriers remains a minimum of 11 operational vessels. However, the decision to move CVN 78, the first ship of the CVN 21 program, from FY 2007 to FY 2008 (made incident to the FY 2006 President's Budget) in conjunction with the scheduled retirement of CVN 65, will result in the carrier force level falling to 10 operational carriers in FY 2013 and FY 2014. While this is not desirable, the Navy has looked into several options to avoid this drop, which is inevitable given the current condition of CVN 65. This will result in significant stress on the force since the anticipated demand for operational carriers will not fall commensurately over this period. The Navy is looking at several strategies associated with the Navy's Fleet Response Plan deployment cycles and remaining ship maintenance schedules that will mitigate the impact of this drop in carrier structure and there appear to be several options that will function – over the short-term (up to 2 years) – to provide the coverage necessary for support of the Combatant Commanders without unduly burdening the remaining 10 carriers. Return to at least 11 operational carriers in FY 2016 is necessary to alleviate this short period where the structure is below the minimum.

In contrast, the necessity to maintain the nuclear industrial base for carrier production will provide the Navy with greater out-year flexibility as the inventory of carriers recovers beyond FY 2015. By carefully managing the NIMITZ Class service life in the period between FY 2019 and FY 2037, the Navy will have the ability to address ship-aging issues while still maintaining the force structure articulated in this plan. Should end-of-life issues require the Navy to retire a given carrier 1 or 2 years before it reaches its full 50-year expected life; this approach permits that decision without resulting in a reduction to 10 carriers again at some point in the future. This flexibility is reflected in the "12 carrier" inventory over this period that is an artifact of both the overlap in those years where delivery of a new carrier in a given year occurs in the concomitant year of the corresponding carrier retirement and the need to support the industrial base at a reasonable level for cost control and workforce stability.

VIII. Estimated Levels of Annual Funding Required for the Long-Range Shipbuilding Program

Figure 1 provides the estimated annual new construction funding in FY 2005 dollars required to execute the Long-Range Naval Vessel Construction Plan. This profile reflects various procurement strategies the Department is currently pursuing in its FY 2008 budget submittal including multi-year procurement contracts. In FY 2007, Congress provided Authorization to spread CVN procurement funding over a four-year period. The Navy will evaluate feasibility of four-year funding in future budgets.

Figure 1. Annual Funding Required for Navy Long-Range Shipbuilding (FY 2008-2037)



The annual funding required to achieve and sustain the 313-ship force structure described herein is about 13.4 billion dollars per year in FY 2005 dollars (14.4 billion dollars in FY 2007 dollars). The 13.4 billion dollars per year does not include funding for CVN Refueling Complex Overhauls, SSBN/SSN Engineered Refueling Overhauls, other conversions, Service Life Extension Programs, small craft, or other costs associated with the New Shipbuilding Construction account. Achieving the 313-ship force structure within the average annual investment of about 13.4 billion dollars will require the Navy to stabilize and control requirements growth. Controlling shipbuilding costs will also require increased industry commitment to process improvement, capital investment, and workforce shaping. To facilitate this commitment from industry, the Navy is committed to a stable out-year procurement plan for both ship types and numbers of ships. Providing a stable shipbuilding plan that industry can use to determine their expected workloads will enable industry to commit resources to facilities and operating efficiencies that should help bring down the end-cost of the ships the Navy plans on procuring.

The Navy also needs procedures in place within the Department that are aimed at controlling requirements, maturing detailed designs prior to construction, and putting proper incentives in contracts to ensure the Navy gets the best value. To that end, the Navy has made significant efforts to establish and maintain control of requirements growth and ship costs and to improve affordability of its future force that include:

- Senior level review boards have been instituted and have added increased discipline to control platform cost and requirements growth in Navy shipbuilding programs.
- The Navy is emphasizing the number of repeat builds of ships within the same class to reduce new construction shipbuilding costs provided the required warfighting capabilities can be retained. This will permit longer production runs and resultant cost reductions associated with production improvements and economies of scale.
- The Navy's long-range vision reduces the types and models of ships, maximizes the reuse of ship designs and components, implements open architecture for software and hardware systems, and introduces systems modularity.
- The Navy plans that make greater use of contract incentives, such as steep share lines combined with performance incentives, multi-year procurements, fixed price contracts (when and where appropriate), are expected to contribute to real cost containment in future shipbuilding plans.

While these current efforts contribute to near- and mid-term cost reductions, the Navy realizes that balancing far term warfighting requirements and costs may be fiscally challenging, and that these efforts alone may not be enough. As more accurate cost estimates are determined in future ship development (for ships such as CG(X), SSBN(X), etc.), the Navy may need to adjust the average annual investment objective or revisit warfighting requirements as appropriate.

The first of the fourteen remaining operational Trident SSBNs is planned to be retired beginning in 2029. As a result of further study during FY 2006/2007, the Navy has accelerated the date to begin procurement of the next generation SSBN. The Navy plans on pursuing this effort beginning in FY2019. Embarking on their replacements at this point will provide support for the nuclear design industrial base and reduce the engineering design concurrency associated with other nuclear submarine development programs. In addition, this timeline provides reduced acquisition risk for this important strategic asset. As these vessels represent the most survivable leg of the nation's nuclear triad, it is imperative that the Nation commit to their timely recapitalization. Given the strategic nature of these vessels and the national mission which they support, the Department believes these ships will require the same level of national commitment to their replacement as existed in the construction of the original OHIO Class submarines. The Navy will

continue to work with Congress to identify the funding source for these vessels at the point when commitment to funding their design is approached. While the Navy is committed to this program, recapitalization of ships with similar dimensions and capacity as the OHIO Class from within existing resources could have a very serious negative impact on the remaining ship procurement programs. Based on this, the Navy will, once again, seek strategic program support funding for these national assets as the Navy enters into their design and recapitalization.

IX. Naval Vessel Construction Risk

Funding for the Navy's near-term shipbuilding requirement meets the needs of the Department and fully funds those ships included in the FY 2008 President's Budget and the future year defense plan (FYDP). Therefore, funding is adequate for the planned force structure in the near-term. It will be the Navy's challenge to maintain control of these costs to ensure the overall force structure required by the 313 ship force remains affordable in the long term.

X. Summary

While the Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans, The Navy's shipbuilding requirement has remained stable. The 313-ship fleet reflects a force that has the ability to meet a broad array of future challenges and anticipated threats for the FY 2020 time period. The key to realizing the vision of the 313-ship fleet is the stability of the shipbuilding plan. This requires close cooperation between this Department, Congress, and industry, all three of which are tightly linked. Achieving this stability in the shipbuilding plan will require discipline from these major stakeholders. Full funding and support of this plan is crucial to transforming the Navy's fleet to a naval force attuned to the 21st Century and its evolving requirements.

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Section 124 (e) of the Fiscal Year 2006 Defense Authorization Act, Public Law 109-163, directed the Secretary of the Navy to provide an annual report that provides current information regarding the content of any element of the Littoral Combat Ship (LCS) Class of vessels that is designated as a "mission package", the estimated cost of any such element, and the total number of such elements anticipated.

The enclosed annual report provides current information regarding Mission Package content, estimated cost, and discusses changes from the last report submitted March 28, 2006.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 124 (e) of the Fiscal Year 2006 Defense Authorization Act, Public Law 109-163, directed the Secretary of the Navy to provide an annual report that provides current information regarding the content of any element of the Littoral Combat Ship (LCS) Class of vessels that is designated as a "mission package", the estimated cost of any such element, and the total number of such elements anticipated.

The enclosed annual report provides current information regarding Mission Package content, estimated cost, and discusses changes from the last report submitted March 28, 2006.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 2 1 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Section 124 (e) of the Fiscal Year 2006 Defense Authorization Act, Public Law 109-163, directed the Secretary of the Navy to provide an annual report that provides current information regarding the content of any element of the Littoral Combat Ship (LCS) Class of vessels that is designated as a "mission package", the estimated cost of any such element, and the total number of such elements anticipated.

The enclosed annual report provides current information regarding Mission Package content, estimated cost, and discusses changes from the last report submitted March 28, 2006.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 124 (e) of the Fiscal Year 2006 Defense Authorization Act, Public Law 109-163, directed the Secretary of the Navy to provide an annual report that provides current information regarding the content of any element of the Littoral Combat Ship (LCS) Class of vessels that is designated as a "mission package", the estimated cost of any such element, and the total number of such elements anticipated.

The enclosed annual report provides current information regarding Mission Package content, estimated cost, and discusses changes from the last report submitted March 28, 2006.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee Report 109-452, the enclosed report provides measures that can be taken to manage the capacity of the shipbuilding/ship repair industrial base in a manner that would make Navy shipbuilding more affordable.

A stable shipbuilding industrial base is required to ensure minimum sustaining employment levels and retention of critical skills to maintain the U.S. shipbuilding and ship repair industrial base to meet the requirements of the Department of Navy for an affordable and capable force structure. The Navy is addressing overall force affordability and industrial base stability through management of three key aspects related to the 313 shipbuilding plan - requirements, cost, and program stability which provides a key demand signal to industry.

The Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans. The Navy recently completed a business plan for the maintenance of our fleet. This plan discusses how maintenance activities will be divided between the public and private sectors.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee Report 109-452, the enclosed report provides measures that can be taken to manage the capacity of the shipbuilding/ship repair industrial base in a manner that would make Navy shipbuilding more affordable.

A stable shipbuilding industrial base is required to ensure minimum sustaining employment levels and retention of critical skills to maintain the U.S. shipbuilding and ship repair industrial base to meet the requirements of the Department of Navy for an affordable and capable force structure. The Navy is addressing overall force affordability and industrial base stability through management of three key aspects related to the 313 shipbuilding plan - requirements, cost, and program stability which provides a key demand signal to industry.

The Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans. The Navy recently completed a business plan for the maintenance of our fleet. This plan discusses how maintenance activities will be divided between the public and private sectors.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee Report 109-452, the enclosed report provides measures that can be taken to manage the capacity of the shipbuilding/ship repair industrial base in a manner that would make Navy shipbuilding more affordable.

A stable shipbuilding industrial base is required to ensure minimum sustaining employment levels and retention of critical skills to maintain the U.S. shipbuilding and ship repair industrial base to meet the requirements of the Department of Navy for an affordable and capable force structure. The Navy is addressing overall force affordability and industrial base stability through management of three key aspects related to the 313 shipbuilding plan - requirements, cost, and program stability which provides a key demand signal to industry.

The Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans. The Navy recently completed a business plan for the maintenance of our fleet. This plan discusses how maintenance activities will be divided between the public and private sectors.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee Report 109-452, the enclosed report provides measures that can be taken to manage the capacity of the shipbuilding/ship repair industrial base in a manner that would make Navy shipbuilding more affordable.

A stable shipbuilding industrial base is required to ensure minimum sustaining employment levels and retention of critical skills to maintain the U.S. shipbuilding and ship repair industrial base to meet the requirements of the Department of Navy for an affordable and capable force structure. The Navy is addressing overall force affordability and industrial base stability through management of three key aspects related to the 313 shipbuilding plan - requirements, cost, and program stability which provides a key demand signal to industry.

The Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans. The Navy recently completed a business plan for the maintenance of our fleet. This plan discusses how maintenance activities will be divided between the public and private sectors.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

REPORT TO CONGRESS

on

Shipbuilding/Ship Repair Industrial Base Capacity

PREPARED BY

Deputy Assistant Secretary of the Navy
For Shipbuilding Programs
Office of the Assistant Secretary of the Navy
Research, Development, and Acquisition
1000 Navy Pentagon
Washington, D.C. 20350

February 2007

BACKGROUND

The Fiscal Year 2007 House Armed Services Committee Report 109-452 directs the Secretary of the Navy to submit a report to the Congressional Defense Committees on measures that can be taken to manage the capacity of the shipbuilding/ship repair industrial base in a manner that would make Navy shipbuilding more affordable.

EXECUTIVE SUMMARY

The U.S. has six major private shipyards, which constitute the first tier of naval construction, and four public yards which repair naval vessels. Two defense contractors, Northrop Grumman Corporation and General Dynamics Corporation, own the six shipyards capable of producing the U.S. Navy's most advanced warships and submarines.

The U.S. Navy operates four public yards for depot level repair of fleet vessels. They are Portsmouth Naval Shipyard located in Kittery, ME, Norfolk Naval Shipyard located in Portsmouth, VA, Puget Sound Naval Shipyard and Intermediate Maintenance Facility, in Bremerton, WA, and Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility in Pearl Harbor, HI.

The industry's second tier shipyards include facilities such as Bollinger Shipyards in Lockport, LA, Marinette Marine Corporation in Marinette, WI, Textron Marine and Land Systems in New Orleans, LA, VT Halter Marine Shipyard in Pascagoula, MS, and Austal USA in Mobile, AL. These yards construct smaller naval and commercial vessels such as assault landing craft, foreign military sales, coastal patrol craft, ocean going tugboats, special mission ships, ferries, barges, and U.S. Navy Littoral Combat Ship (LCS).

New Construction

A stable shipbuilding industrial base is required to ensure minimum sustaining employment levels and retention of critical skills to maintain the U.S. shipbuilding industrial base to meet the requirements of the Department of Navy (DoN) for an affordable and capable force structure. The DoN requires an industrial base which is reliable, cost-effective and adequate to meet the Nation's strategic objectives. A stable, robust, funding profile is the primary factor necessary to sustain those industrial capabilities which support Navy shipbuilding. Such funding focuses market demand across a broad spectrum of industry segments to meet emerging and projected DoN requirements.

The Navy's long-range shipbuilding plan seeks to align the Navy's force structure to meets its operational requirements in terms of both capability and capacity. The long range plan also addresses overall force affordability and industrial base stability. The three key aspects of the Navy's plan - requirements, cost, and stability are key and provide the demand signal to industry. The Navy is addressing all three elements by developing a reliable and executable long-range shipbuilding plan for the nation's shipbuilding industrial base.

Navy's ship Program Executive Officers (PEO'S) and program managers, in concert with their industry partners, have generated significant productivity improvements during a sustained period of low rate production. However, we still face significant challenges as we design and construct the Navy of the future. As we construct the force of the future we are mindful of the Navy's 313 ship force structure requirement and long-range shipbuilding plan and we are striving to maintain stability within our shipbuilding industrial base. In managing the industrial base there are three primary factors that drive the health of the shipbuilding industrial base they are capacity, capability, and competition.

The Navy is committed to developing a stable shipbuilding plan which will allow industry to project future workload requirements, ensure the availability of a skilled workforce with requisite skills mix to perform the work, and to make the necessary capital investment in plant and equipment to affordably build and repair the ships of the future.

Ship Repair

The four public sector Naval Shipyards (Portsmouth, Norfolk, Puget Sound, and Pearl Harbor) are wholly-owned subsidiaries of the Navy enterprise, and are vital for Fleet operational availability and mission success. The shipyards provide the essential organic capability to perform ship depot maintenance and emergency repair work, primarily for nuclear-powered aircraft carriers and submarines, and complement the private sector's capability for conventional surface ships. Along with the private sector, the Naval Shipyards provide operational and combat ready ships and weapon systems required by Combatant Commanders and the Joint Chiefs of Staff contingency scenarios.

The Naval Shipyard fundamental business objectives include sustaining the core skills, process, and infrastructure capability and capacity for future workload, and continuously improving processes and systems to provide increased value and operational availability to the Fleet.

Overall recommendations for managing the capacity of the shipbuilding/ shipbuilding repair industrial base require a partnership between the Navy, Industry, and Congress.

Navy can help to stabilize the industrial base by:

- Promoting acquisition strategies that enhance cost reduction such as multi-year procurement, block-buy, teaming for flexibility, open architecture and commonality;
- Encouraging modernization through steady workload and a variety of contract incentives;
- Maintaining a level workload to provide the best opportunity for increasing efficiency and effectiveness;

- Matching the most experienced people to shipbuilding programs with highest risk; and
- Continuing to assess and execute the Naval Shipyard Business Plan.

Shipbuilders should:

- Benchmark off of the best of European, U.S. and Asian shipbuilding practices and adopt the best strategies to increase efficiency;
- Buy common components wherever possible;
- Reinvest profit towards shipbuilding advancements and new technology;
- Ensure ship reporting metrics are correctly reported;
- Apply lessons learned across shipbuilding programs; and
- Investigate bulk purchases of commodities such as steel and copper.

The Congress can help with:

- Providing multi-year procurement authority;
- Allowing flexibility of funding for cross-class component purchases; and
- Encouraging and creating incentives for commercial work at U.S. shipbuilders.

DISCUSSION

The near-term construction workload is reflected in the FY 2008 President's Budget request which calls for construction of seven ships: one VIRGINIA Class submarine; one SAN ANTONIO Class Amphibious Transport Dock ship (LPD 17); one LEWIS & CLARK Class Auxiliary Cargo & Ammunition ship (T-AKE); and three Littoral Combat Ships (LCS); and the first ship of the Future Carrier Program, CVN 78. In addition, we have requested full funding for the tenth hull and advance procurement of the eleventh and twelfth VIRGINIA Class submarines, completion of full funding for the two lead DDG 1000 ships, advance procurement for the CVN 71 Refueling Complex Overhaul (RCOH) funding, development design and advanced procurement for CVN 79, the second ship in the Future Carrier Program, second increment for the first Amphibious Assault Ship Replacement (LHA(R)), Engineered Refueling Overhaul (ERO) of a Ballistic Missile Submarine, Nuclear (SSBN), and the service life extension for five Landing Craft Air Cushion craft. The Navy will procure one Joint High Speed Vessel (JHSV) for the Army in FY 2008. This shipbuilding plan provides a stable demand signal to our industry partners. The Navy closely monitors the overall industrial base as well as individual sector industrial bases.

Destroyer Industrial Base:

Eleven DDG 51s are currently under contract and being constructed at Northrop Grumman Ship Systems (NGSS) and Bath Iron Works (BIW) with construction completion in 2010. There are five DDG 1000 ships in the FY 2008 President's Budget request across the six years of the Future Years Defense Program (FYDP), which is unchanged from the FY 2007 President's Budget request. The DDG 1000 profile is a result of the Navy's dual lead ship acquisition strategy; two split-funded ships in FY 2007

and in FY 2008. NGSS and BIW each began detail design of the respective lead ships in FY 2006. The dual lead ship acquisition strategy preserves the opportunity for some form of competition for the FY 2009 and follow ships. DDG 1000 is critical to the continued sustainment of the destroyer industrial base.

BIW's workforce will decrease once the seven (7) DDG 51s currently under construction is completed. Workforce reductions, loss of learning, loss of skills, and higher unit costs are areas of concern during BIW's transition from the end of the DDG 51 construction to production of DDG 1000.

NGSS operations were severely impacted by Hurricane Katrina in late August 2005. The Pascagoula, Gulfport, and Avondale facilities sustained damage and the workforce was displaced. An intensive effort to retain and hire skilled tradesmen is underway, and delivery dates are continuously being evaluated for ships currently under construction. Rebuilding continues, with the workload expected to be above the pre-Katrina projections for the same timeframe.

Carrier Industrial Base:

The carrier industrial base is generally helped by the concurrent work occurring on nuclear submarines. The carrier work is mainly in three areas, new ship construction, design and engineering and Refueling Complex Overhaul (RCOH). Production workload will be increasing slightly in the 2007/2008 timeframe, with a reduction forecasted in 2009, followed by the need to quickly ramp up in later years. Engineering workload is stable through the end of 2010, with slight reductions forecasted in the 2011/2012 timeframe. The production workforce will need to ramp up in 2010/2011, increasing hiring which will require more training and supervision. Significant Northrop Grumman Newport News (NGNN) and Navy management attention is being applied to minimize costs during this period. As part of development of the 313 shipbuilding plan, the Navy determined that a carrier build rate of one carrier start every four years (2008, 2012, 2016) with one year pause for technology insertion followed by one carrier every four years (2021, 2025, 2029) and so on, would be the most economical profile and best stabilizer of the carrier industrial base while still meeting the necessary force structure requirement of 11 carriers.

Submarine Industrial Base:

The effects of procuring only eleven submarines in the past fifteen years, coupled with the continued low build rate of one submarine per year, have forced many vendors to exit this specialized business or incur increased costs. The combination of a long ship construction cycle and a low shipbuilding rate provides a challenge to the shipyards to ensure the continued training and retention of specialized workers. Two submarines per year will distribute overhead costs, and would increase learning efficiencies. Navy is working to reduce the cost of VA Class submarines to $2B (FY05$) per unit starting in 2012 when procurements ramp to two/year.

Amphibious and Auxiliary Industrial Base:

The Amphibious and Auxiliary shipyards include National Steel and Shipbuilding Company (NASSCO) and NGSS (both Ingalls and Avondale operations). At NASSCO, the current production workforce is stable through 2008. The workforce level decreases thereafter because of the quantity of T-AKE's per year in production. However, a new venture with DAEWOO Shipbuilding, as well as competitive opportunities with respect to the Maritime Prepositioning Force Future (MPF(F)) Mobile Landing Platform and Large Medium Speed Roll-On/Roll-Off, may provide additional workload for NASSCO.

At NGSS's Avondale facility, the workforce is relatively stable through mid-2010 when the LPD Program concludes in 2011. At NGSS's Ingalls facility, the workload is expected to rise through 2009 with LPD and LHA 6 workload and then will decline to a relatively stable workforce with MPF(F) LHA and DDG 1000 in 2012. Today, NGSS mitigates some workload peaks and valleys through workshare opportunities between their Pascagoula and Avondale operations.

Second Tier Industrial Base:

Second tier shipyards are being used to meet the unique requirements for high speed and shallow draft ship capabilities. The second tier shipyards provide a robust skill mix of capabilities because of their link with the overall commercial sector. Austal and Marinette Marine are currently subcontractors for LCS. The workload at these yards is stable due to a robust backlog of commercial and other government work. This workforce will be spread across the yards mentioned above. Additional facilitization may be required at one or more of these yards to support future production of LCS.

VT Halter Marine, Inc. is also currently working detail design and construction of the Missile Range Instrumentation Ship T-AGM(R) Cobra Judy Replacement. The Fiscal Year 2007 Department of Defense Appropriations Act, Public Law 109-289, also included funding for construction of a T-AGS Oceanographic Survey Ship and will likely be accomplished at a second tier yard. Additional competitive opportunities will be provided with the start of the Navy and Army Joint High Speed Vessel program with procurement of the lead hull funded by the Army in 2008.

Ship Repair Industrial Base

The Fleet Response Plan is reshaping the way the Navy responds to the Nation's needs. To maintain a deployed and surge ready Carrier Strike Group readiness posture, our maintenance system must support both current and future readiness. The focus is on a reinvention of the ship maintenance process using a corporate enterprise approach, which produces a fleet of ships ready to deploy when called upon.

SHIPMAIN is a "best business" practice that is changing the culture of getting surface ship repair work completed in a one-step process. SHIPMAIN provides the maximum benefit per maintenance dollar through the implementation of a refined process

that eliminates time lags, prioritizes ship jobs, and empowers surface ship sailors in the maintenance decisions impacting their ships. It is a continuous maintenance system planned and coordinated through new procedures and processes. To track the overall success of SHIPMAIN, the Navy has established metrics to measure key aspects of ship maintenance processes, including modernization, work identification, planning, contracting, and execution of work.

The six new Regional Maintenance Centers (RMCs), located in Norfolk, VA, Mayport, FL, Ingleside, TX, San Diego, CA, Bremerton, WA, and Pearl Harbor, HI, have implemented the SHIPMAIN process. RMCs plan and execute maintenance per fleet policy and guidance, as well as assure process compliance. This collaborative effort establishes a single pier side Navy maintenance activity to support sailors and their ships in their homeports.

Multi-Ship Multi-Option (MSMO) contracts target efficient and effective maintenance practices. They allow the executing agency the ability to better plan its work and take advantage of best repair capabilities. They will provide long-term vendor relationships throughout ships' training, deployment, maintenance and modernization cycles, in order to reduce costs through, level loading of work, and increased contractor participation in work package development and planning. The future of class maintenance contracting lies with MSMO contracting.

In 2001 the Naval Sea Systems Command introduced the "One Shipyard" concept of the Industrial Base Workload and Resource Enterprise to achieve the most efficient ship maintenance for the Fleet under a Surge, Sustain and Reconstitute operational construct, as outlined in the CNO Guidance. One Shipyard focuses on cost, schedule, and quality through standardizing processes, sharing resources among public yards, and partnering with private yards. Other vital elements are a corporate approach to material support and resolving critical skill shortages. One Shipyard is a descriptor for this distributed complex. The size and demographics of the public and private industrial base workforce and careful balancing of total workforce capacity with programmed workload creates geographic critical skills shortfalls, particularly when the actual workload varies from programmed workload in a surge scenario. To mitigate these skill imbalances, skilled workers are loaned and borrowed rather than having each shipyard hire, train and employ capacity to execute peak workload that would be underutilized and costly to maintain during off-peak times. The industrial base today has adequate worker capacity, but the workers must be carefully managed and moved to where the work is geographically. This facet of ship repair is unique in the depot industry—all other depot repairs are conducted by moving the units to be repaired to where the workers are employed.

To maintain an effective, efficient, ready Naval Shipyard workforce, the employee resources must be stabilized and revitalized at a sufficient level to provide a work-skills balance to meet the critical work with adequate margin for surge to meet unplanned requirements. U.S. Code Title 10 contains several requirements for organic (i.e., U.S. Navy owned and operated) depot maintenance capabilities and capacity. These

statutes are the foundation for building a bottom-up "zero-based" definition of Naval Shipyard capacity and baseline workload requirements.

- 10 USC 2464 requires a core logistics capability (i.e., skills, processes, and infrastructure) that is government-owned and government-operated, to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response for all weapons systems.
- 10 USC 2466 limits the amount of depot maintenance funds that can be contracted out to the private sector to less than or equal to 50%.
- 10 USC 2472 requires public depot civilian employment to be managed solely on the basis of workload and the funds available for such depot maintenance. It prohibits management by "end strength."

The workload distribution as outlined in the Navy's Business Plan is accomplished using the availability assignment criteria approved by the Secretary of the Navy. The governing principles of these criteria aim to strike a balance between ship's crew quality of life, cost, operational availability, and ability to execute work in accordance with cost and schedule goals.

- Schedule maintenance in ship's homeport when possible
- Optimize critical skill usage (One Shipyard concept)
- Load public shipyards first to efficiently use organic capacity
- When there is more than one option for availability assignment, the following factors, as applicable, will always be taken into account: a) Crew impact, b) Cost impact, c) Operational impact, d) Shipyard executability, e) Class Maintenance Plan impact, f) Schedule impact, and g) Modernization impact.

The Navy's Business Plan concludes that the size of the Naval Shipyard enterprise workload and workforce is based on the most efficient and effective use of the four shipyards in operation today with a minimum workload required to meet the core and 50/50 requirements is, on average, approximately 3.6 million man-days per year.

WAY AHEAD

Our nation's shipbuilding industrial base has experienced a 40 percent reduction in workload since the end of the Cold War and industry adjusted its workforce to meet the Navy's shipbuilding requirements. Both industry and the Navy are concerned with fluctuations in the shipbuilding workload. A stable shipbuilding program is required to ensure minimum sustaining employment levels and retention of critical skills. This is essential if we are to retain a viable U.S. shipbuilding industrial base to meet the Navy's requirements for an affordable and capable force structure.

The Navy continually assesses the shipbuilding industrial base to determine applicable best practices that could be implemented across shipbuilding programs. During the development of the FY 2008 Annual Long-Range Plan for the Construction of Naval Vessels, the Navy reviewed the impact to the industrial base and believes that the current industrial base is sufficient for its needs. The long-range shipbuilding strategy

provides a foundation for stability across the shipbuilding industry by balancing the risk between capabilities required to meet the threats of the future, the affordability of Navy platforms and the stability of our industrial base. A future fleet of about 313 ships will deliver the capacity and capability required by the joint force as expressed in the Quadrennial Defense Review and in Defense Planning Guidance.

The Navy is sponsoring policies to align the industrial base for long-term force development through split funding, advanced procurement, and cost savings incentives. The acquisition team performs periodic program reviews with a focus on greater efficiency, effectiveness, and reduced cycle time and maintaining costs and production schedules within contractual limits. The Navy also views industry as a trusted partner while we provide a stable baseline upon which to plan.

Additionally, the Navy will continue to work with the private sector and the Naval Shipyards to provide operational and combat ready ships and weapon systems required by Combatant Commanders and the Joint Chiefs of Staff contingency scenarios and enhance ship operational availability (Ao). The Naval Shipyard will sustain the core skills, process, and infrastructure capability and capacity for future workload and will continuously improve processes and systems to provide increased value and operational availability. The steps that the Navy is taking includes, driving culture change and improvements in direct work productivity with Lean Six Sigma implementation. Revitalizing and shaping the workforce through careful management of overtime, hiring, the apprentice program, and attrition and investing in the Naval Shipyards' physical plant infrastructure and information technology systems to ensure future mission capability and Fleet readiness.

CONCLUSIONS

The Navy believes that the number one issue facing the American military shipbuilder today is the uncertainty in future orders for ship construction. The year to year fluctuation in the projected naval order book adds uncertainty for the shipbuilder wanting to invest in capital and labor improvement, and adds cost to the vessels actually being built and delivered. This fluctuation limits procurement of vessels that have been programs of record, programs that the shipbuilders have used to make labor and capital investment decisions.

The fundamental basics of managing the capacity of the industrial base and reducing Navy shipbuilding costs begin with a stable build program. The Navy's 313-ship goal and the Annual Long-Range Plan for the Construction of Naval Vessels which lays out the path to that force capability and capacity provides this basis. Building on this foundation, the Navy can further stabilize the industrial base by:

- Promoting acquisition strategies that enhance cost reduction such as multi-year procurement, block-buy, teaming for flexibility, open architecture and commonality;

- Encouraging modernization through steady workload and a variety of contract incentives;
- Maintaining a level workload to provide the best opportunity for increasing efficiency and effectiveness;
- Matching the most experienced people to shipbuilding programs with highest risk; and
- Continuing to assess and execute the Naval Shipyard Business Plan.

Shipbuilders should:

- Benchmark off of the best of European, U.S. and Asian shipbuilding practices and adopt the best strategies to increase efficiency;
- Buy common components wherever possible;
- Reinvest profit towards shipbuilding advancements and new technology;
- Ensure ship reporting metrics are correctly reported;
- Apply lessons learned across shipbuilding programs; and
- Investigate bulk purchases of commodities such as steel and copper.

The Congress can help with:

- Providing multi-year procurement authority;
- Allowing flexibility of funding for cross-class component purchases; and
- Encouraging and creating incentives for commercial work at U.S. shipbuilders.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 12, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directed that the enclosed report on the Maritime Prepositioning Force (Future) be submitted with the Fiscal Year 2008 President's Budget request. Additionally, and as a follow-on to the Maritime Prepositioning Force (Future) Report submitted to Congress in June 2005, this new report is designed to provide a greater level of understanding.

Maritime Prepositioning Force (Future) will constitute a component of our Nation's Global Prepositioning Materiel Capabilities. The squadron will contribute a brigade's worth of Prepositioned War Reserve Materiel Afloat lift, replacing one of the three existing Maritime Prepositioning Ship Squadrons. Maritime Prepositioning Force (Future) is designed to enable freedom of action, operating from over the horizon and employing forces through and over anti-access environments.

The Department of the Navy's plan for Maritime Prepositioning Force (Future), as reflected in the Department's 30-Year Shipbuilding Plan, will provide this capability in a timely and cost effective manner while supporting industrial base stability, as well as providing opportunities for competition.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 12, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directed that the enclosed report on the Maritime Prepositioning Force (Future) be submitted with the Fiscal Year 2008 President's Budget request. Additionally, and as a follow-on to the Maritime Prepositioning Force (Future) Report submitted to Congress in June 2005, this new report is designed to provide a greater level of understanding.

Maritime Prepositioning Force (Future) will constitute a component of our Nation's Global Prepositioning Materiel Capabilities. The squadron will contribute a brigade's worth of Prepositioned War Reserve Materiel Afloat lift, replacing one of the three existing Maritime Prepositioning Ship Squadrons. Maritime Prepositioning Force (Future) is designed to enable freedom of action, operating from over the horizon and employing forces through and over anti-access environments.

The Department of the Navy's plan for Maritime Prepositioning Force (Future), as reflected in the Department's 30-Year Shipbuilding Plan, will provide this capability in a timely and cost effective manner while supporting industrial base stability, as well as providing opportunities for competition.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 12, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directed that the enclosed report on the Maritime Prepositioning Force (Future) be submitted with the Fiscal Year 2008 President's Budget request. Additionally, and as a follow-on to the Maritime Prepositioning Force (Future) Report submitted to Congress in June 2005, this new report is designed to provide a greater level of understanding.

Maritime Prepositioning Force (Future) will constitute a component of our Nation's Global Prepositioning Materiel Capabilities. The squadron will contribute a brigade's worth of Prepositioned War Reserve Materiel Afloat lift, replacing one of the three existing Maritime Prepositioning Ship Squadrons. Maritime Prepositioning Force (Future) is designed to enable freedom of action, operating from over the horizon and employing forces through and over anti-access environments.

The Department of the Navy's plan for Maritime Prepositioning Force (Future), as reflected in the Department's 30-Year Shipbuilding Plan, will provide this capability in a timely and cost effective manner while supporting industrial base stability, as well as providing opportunities for competition.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 12, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directed that the enclosed report on the Maritime Prepositioning Force (Future) be submitted with the Fiscal Year 2008 President's Budget request. Additionally, and as a follow-on to the Maritime Prepositioning Force (Future) Report submitted to Congress in June 2005, this new report is designed to provide a greater level of understanding.

Maritime Prepositioning Force (Future) will constitute a component of our Nation's Global Prepositioning Materiel Capabilities. The squadron will contribute a brigade's worth of Prepositioned War Reserve Materiel Afloat lift, replacing one of the three existing Maritime Prepositioning Ship Squadrons. Maritime Prepositioning Force (Future) is designed to enable freedom of action, operating from over the horizon and employing forces through and over anti-access environments.

The Department of the Navy's plan for Maritime Prepositioning Force (Future), as reflected in the Department's 30-Year Shipbuilding Plan, will provide this capability in a timely and cost effective manner while supporting industrial base stability, as well as providing opportunities for competition.

A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable C.W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Armed Services Committee Report 109-254, the Navy has reviewed economic order quantity and long lead time material procurement for the CVN 21 Program advance procurement. This report summarizes the Navy's review.

The Navy's Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2008 includes the plan to procure the first three ships of the CVN 21 Program at 4-year intervals with provisions for advance material procurement. While engaged in the FY 2008 Budget Development process, the Navy assessed a number of options to ensure the budget request fully funds our current and projected mission requirements while considering our Nation's critical industrial base. The FY 2008 President's Budget procurement plan and the Navy's Long-Range Plan for Construction of Naval Vessels represents the best option for use of Shipbuilding and Conversion, Navy funding on the CVN 21 Program.

Limited options exist for economic order quantity (EOQ) offsets on the first three ships of the CVN 78 Class. The addition of $50 million in FY 2007 funds for the purpose of EOQ is no longer an executable option based upon timing of the funds. The Navy evaluated the EOQ question and determined that $100 – 200 million would be needed in FY 2008 to realize a savings of $25 – 50 million between FY 2010 and 2015. The Navy did not view this as an attractive business case and did not include EOQ in our FY 2008 budget submission.

Please let me know if I can be of further assistance. I will be happy to brief you on how Navy reached this conclusion if you desire. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Armed Services Committee Report 109-254, the Navy has reviewed economic order quantity and long lead time material procurement for the CVN 21 Program advance procurement. This report summarizes the Navy's review.

The Navy's Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2008 includes the plan to procure the first three ships of the CVN 21 Program at 4-year intervals with provisions for advance material procurement. While engaged in the FY 2008 Budget Development process, the Navy assessed a number of options to ensure the budget request fully funds our current and projected mission requirements while considering our Nation's critical industrial base. The FY 2008 President's Budget procurement plan and the Navy's Long-Range Plan for Construction of Naval Vessels represents the best option for use of Shipbuilding and Conversion, Navy funding on the CVN 21 Program.

Limited options exist for economic order quantity (EOQ) offsets on the first three ships of the CVN 78 Class. The addition of $50 million in FY 2007 funds for the purpose of EOQ is no longer an executable option based upon timing of the funds. The Navy evaluated the EOQ question and determined that $100 – 200 million would be needed in FY 2008 to realize a savings of $25 – 50 million between FY 2010 and 2015. The Navy did not view this as an attractive business case and did not include EOQ in our FY 2008 budget submission.

Please let me know if I can be of further assistance. I will be happy to brief you on how Navy reached this conclusion if you desire. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Armed Services Committee Report 109-254, the Navy has reviewed economic order quantity and long lead time material procurement for the CVN 21 Program advance procurement. This report summarizes the Navy's review.

The Navy's Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2008 includes the plan to procure the first three ships of the CVN 21 Program at 4-year intervals with provisions for advance material procurement. While engaged in the FY 2008 Budget Development process, the Navy assessed a number of options to ensure the budget request fully funds our current and projected mission requirements while considering our Nation's critical industrial base. The FY 2008 President's Budget procurement plan and the Navy's Long-Range Plan for Construction of Naval Vessels represents the best option for use of Shipbuilding and Conversion, Navy funding on the CVN 21 Program.

Limited options exist for economic order quantity (EOQ) offsets on the first three ships of the CVN 78 Class. The addition of $50 million in FY 2007 funds for the purpose of EOQ is no longer an executable option based upon timing of the funds. The Navy evaluated the EOQ question and determined that $100 – 200 million would be needed in FY 2008 to realize a savings of $25 – 50 million between FY 2010 and 2015. The Navy did not view this as an attractive business case and did not include EOQ in our FY 2008 budget submission.

Please let me know if I can be of further assistance. I will be happy to brief you on how Navy reached this conclusion if you desire. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

FEB 21 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Armed Services Committee Report 109-254, the Navy has reviewed economic order quantity and long lead time material procurement for the CVN 21 Program advance procurement. This report summarizes the Navy's review.

The Navy's Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2008 includes the plan to procure the first three ships of the CVN 21 Program at 4-year intervals with provisions for advance material procurement. While engaged in the FY 2008 Budget Development process, the Navy assessed a number of options to ensure the budget request fully funds our current and projected mission requirements while considering our Nation's critical industrial base. The FY 2008 President's Budget procurement plan and the Navy's Long-Range Plan for Construction of Naval Vessels represents the best option for use of Shipbuilding and Conversion, Navy funding on the CVN 21 Program.

Limited options exist for economic order quantity (EOQ) offsets on the first three ships of the CVN 78 Class. The addition of $50 million in FY 2007 funds for the purpose of EOQ is no longer an executable option based upon timing of the funds. The Navy evaluated the EOQ question and determined that $100 – 200 million would be needed in FY 2008 to realize a savings of $25 – 50 million between FY 2010 and 2015. The Navy did not view this as an attractive business case and did not include EOQ in our FY 2008 budget submission.

Please let me know if I can be of further assistance. I will be happy to brief you on how Navy reached this conclusion if you desire. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

REPORT TO CONGRESS

on

Ship Systems Commonality

PREPARED BY

Deputy Assistant Secretary of the Navy
For Shipbuilding Programs
Office of the Assistant Secretary of the Navy
Research, Development, and Acquisition
1000 Navy Pentagon
Washington, D.C. 20350

February 2007

BACKGROUND

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directed the Secretary of the Navy to submit a report to the congressional defense committees, with the Fiscal Year 2008 President's Budget request, on the analysis of the costs and benefits of implementing a plan to maximize the commonality in the design, integration, and installation of systems into new ships and existing ships. Specifically, the committee believes there are common capabilities in communications, surveillance, self-defense, damage control, combat systems, weapon deployment, propulsion, computing capability, and electrical power generation and distribution. By incorporating a family of ships concepts, which applies to investments made on one ship class to other ship classes, the Navy could avoid redundant research and development while reducing supply and training pipelines. Similarly for new ships, the committee believes a modular and open architecture approach to designing and integrating subsystems could reduce costs for Navy ships.

The Navy agrees with the Senate Armed Services Committee's view of the benefits of commonality, namely in avoiding redundant research and development while reducing supply and training pipelines. For over 30 years, the Navy has been researching, developing, and implementing a range of commonality and modularity approaches. Today, this area continues to be a priority.

SUMMARY OF NAVY ACTIONS

1. Consider commonality in Hull, Mechanical, and Electrical (HM&E) Equipment systems and Mission Systems across multiple ship classes in a cost effective manner through use of competition and innovative contracting to achieve "best value" systems.
2. Consider Type/Model/Series in the Analysis of Alternatives (AoA) guidance and output.
3. Consider reducing the number of hull types in the Navy After Next.
4. Implement Open Architecture across the Navy Enterprise to facilitate common system solutions for both the in-service and new construction ship classes.
5. Update the 30 year shipbuilding plan as necessary to incorporate commonality initiatives.

DISCUSSION OF KEY FINDINGS

Commonality can be addressed in several ways: at the ship level, at the system level, at the material level, and in our processes. All of these applications have potential to add value to the current Navy, the next Navy, or the Navy After Next. A cross-program approach, analogous to that of a financial portfolio manager, may be the best approach to building a total commonality strategy. This will facilitate implementation of commonality initiatives because the cost advantages are tracked at a global level, rather than distributed to programs. In addition, commonality must be addressed in future AoA

studies and requirements documents, namely in the beginning stage, if the Navy expects to see overarching benefits.

Current Navy

The Navy is currently using several approaches in shipbuilding and modernization programs to foster increased ship system and component commonality between current and future ship classes. These efforts include modernization plans for in-service ships, as well as improved acquisition approaches for future ships.

Specifications and standards play a key role in achieving commonality goals. New common systems and equipment will be designed using specifications and standards. Government standards will be used or developed when appropriate to control interfacing and to ensure commonality.

Ship level

To enhance commonality, the Navy is executing Multi-Ship / Multi-Option Contracts for ship repair to address total ship class maintenance and modernization requirements. One tenet of these contracts is to encourage standardization of components at the repair or replacement level by leveraging existing technologies that are common and exportable to other ship classes. Some examples of these initiatives are: Night Vision Equipment, Programmable Logic Controllers, Environmental and Pollution Abatement Systems, fire detection equipment, Remote Tank Level Indicators, and quality of life equipment such as galley, laundry, and crew entertainment systems. This common equipment facilitates a situation where the repair activity can learn the repair once and become proficient, saving time and money on future repairs.

System level

Within the ship community, commonality in HM&E is generally the norm, not the exception. Most ship specifications are developed from the previous class. Therefore, when a component is changed from class to class, it is a planned change to address a design deficiency, an increase in capability, or a discrete requirements difference. For example, parts commonality was a major initiative during design development of VIRGINIA Class, resulting in an order of magnitude reduction in the parts list used for ship construction. An example is the Acoustic Rapid Commercial-Off-The-Shelf Insertion (ARCI) Program. ARCI allowed new-technology sonar systems designed for the VIRGINIA Class to be installed in the other four submarine classes. The use of COTS in ARCI results in 5:1 development; 6:1 production; and 8:1 unit-level consumption cost savings with significantly improved capabilities.

In addition to ARCI, the Navy is currently implementing several initiatives to increase ship system commonality for in-service surface ships. The goal in this approach is to minimize component variance within the systems to reduce cost, schedule, and risk.

Some examples include:

- The CG 47 Class Integrated Ship Controls system leverages the design of GIG-E network switches, Computer Work Stations, HYDRA and Zonal Uninterrupted Power Supply (UPS) from other Navy ship classes.
- The CG Modernization Program leverages Digital Video Surveillance and Enhanced Training Capabilities from DDG 51 Class ships.
- The Navy will use common processing and display systems for all modernization efforts. Specific efforts where commonality has been incorporated are processing servers, processors, the operating system, GIG-E network architecture, display graphics engine, Human Machine Interface implementation, and Mission Critical Enclosures.
- The LSD 41/49 Class Mid-Life Program incorporated Programmable Logic Controllers (PLC) technology to replace existing obsolete Machinery Control Systems with a supportable, more reliable and less costly PLCs. These PLCs are installed in MCM Class ships and ARS Class ships for Machinery Control Systems and in Aircraft Carriers for Damage Control, List Control, consolidated alarms, automated firemain control, and JP-5 Fuel Management.
- The LSD Mid-Life Program installed an "All Electric" alteration that removes hotel services and auxiliary steam systems and replaces them with electric ones. This effort is in alignment with the overall Navy effort to remove auxiliary steam systems from in-service ships and build New Construction ships with "All Electric" auxiliary systems.
- The Diesel Readiness System (DRS) is a collection of initiatives (in fluids, performance, operations and maintenance) developed to improve reliability, maintainability, and operational availability of U.S. Navy diesel engines. DRS was initially prototyped and implemented on LSD 41/49 Class ships, but it is easily adaptable to most diesel engines including those in FFG, LPD, LCC, MCM, PC and LCS Class ships. The aircraft carrier and submarine community have both expressed interest in DRS for their emergency diesel generators.
- The "best athlete" solution is used on aircraft carriers modernization to reduce life cycle costs by reducing ILS requirements to a single common design. This was applied on machinery control and voice systems.
- The CVN 68 Class Carrier Construction Program, In Service Carrier Modernization Program, and CVN 68 Class Refueling Complex Overhaul Programs have all adopted a standard approach to defining, integrating, and procuring Ship Self Defense, C4ISR, Air Traffic Control, and Mission/Strike Planning systems relying on NAVSEA/PEO IWS, SPAWAR/PEO C4I, and NAVAIR/PEO(W)/PEO(T) to provide common solutions across all aircraft carriers as well as other air capable ship platforms.

The Navy has also targeted commonality in ship combat systems. All new combat systems designs are required to be more modular and to incorporate Open Architecture (OA) principles in both their design and acquisition. Modular open systems allow for the isolation of hardware from software so that one can be modified without affecting the other. This facilitates incremental introduction, certification, and testing of the affected modules and reduces the time and costs of certification and Test & Evaluation.

The goal of OA is to procure and maintain combat systems in the most efficient manner possible, while maximizing reuse of software, commonality of hardware, and eliminating redundant capability development. As part of the Warfare Systems "product-line reduction" strategy, the Navy is using a warfighting capability based approach rather than platform-centric approach. This means that Navy develops specific capability and functionality for use Enterprise-wide vice expending additional resources developing multiple systems that provide the same capability but are targeted to one class of ships only.

The Navy has established a library of combat system software and related assets for developing improvements to warfare systems. This approach is expected to result in greater capability through reuse and commonality among the Navy family of systems. Strategic software reuse will also enable programs to decrease development time, decrease development cost, and reduce risk. An area where software sharing has resulted in significant cost avoidance is the Anti-Submarine Warfare mission area. Building on the success of the ARCI Program, common acoustic software is being implemented in existing CGs and DDGs through COTS/OA upgrades to the AN/SQQ-89 system. These systems are also being incorporated into the designs of DDG 1000 and LCS.

Material Level

The Navy is exploring maritime HM&E equipment standardization. A study is underway that has defined potential strategic approaches for achieving maximum cost savings in the material support area. These strategic approaches are comprised of inserting standardization mechanisms and incentives into the acquisition process; minimizing non-standard equipment introduction during maintenance and modernization; and establishing long-term commodity-based contracts and "best value" tools for selecting standard alternatives to be used by all HM&E equipment procurement organizations.

By using common system/equipment across multiple ship platforms and awarding long-term commodity contracts for use by all HM&E procuring activities, the Navy may be able to leverage industry and achieve significant cost savings through bulk procurements and reduced life cycle costs for equipment, material, tools and associated technical documentation. The first of several commodities contracts is expected to be awarded in early FY 2008. Significant value may be gained if the Navy takes advantage of these standardization opportunities. Use of HM&E equipment/material commonality may significantly reduce the acquisition and life-cycle cost of the ship.

Processes

The Navy implemented a common modernization process in 2002, termed the SHIPMAIN Entitled Process. This process employs a disciplined decision making model to prevent investment in modernization programs with limited value. This common process also manages the critical installation planning milestones for each ship to reduce production churn on the waterfront and minimize payment of premiums to the installing activity.

Next Navy

The Navy currently has plans to increase the ship and ship system commonality. They include both the planned future activities as part of the 30 Year Shipbuilding Plan and a conceptual alternative (Navy After Next) that details a reasonable stretch goal.

Ship level

When addressing commonality at the ship level, the Navy has begun to reduce the number of ship types. The 2007 fleet has 29 hull types. By 2020, this number is reduced to 27 hull types if the 30 Year Shipbuilding Plan is followed. A reduction in the number of hull types will result in fewer unique components to be maintained and a reduced training and supply pipeline. It should be noted that Aircraft Carriers are in the middle of this reduction process. The Navy is currently reducing from five types of carriers (Forrestal, Kitty Hawk, CV 67, CVN 65, and CVN 68 Classes) to two types (CVN 68 and CVN 78 Classes) by the year 2015. Additionally, the CVN 78 Class uses the same hull form as the CVN 68 Class, as another means to reduce design and production costs and increase commonality. An Affordable Future Fleet Study discussed later in this report is examining further reductions in the number of hull types throughout the Fleet.

System level

The Navy plans to use innovative approaches to incorporate ship system commonality in new shipbuilding programs. The DDG 1000 destroyer has achieved commonality by utilizing existing Navy systems to the maximum extent possible. For example, 67 percent of the total DDG 1000 software is reused from existing Navy systems. Hardware reuse has also been emphasized to ensure logistics interoperability with the Fleet and a reduced shore support infrastructure footprint. Where existing Navy systems do not satisfy unique DDG 1000 warfighting requirements, new systems have been developed that will be common among the future ship classes or potentially backfit on the in-service fleet. For instance, the DDG 1000 Total Ship Computing Environment Infrastructure incorporates a modular, open systems architecture that is planned for reuse in the Ship Self Defense System (SSDS) in LPD 17, CVN 68, and LHA 6 Classes. Similarly, the Dual Band Radar, consisting of the S-band Volume Search Radar and an X-Band Multi-Function Radar, will also be installed on CVN 21.

Similarly, the CVN 21 Future Carrier Program has achieved commonality to existing Navy systems that are utilized in the CVN 68 Class Construction, Refueling Complex Overhaul, and In Service Modernization Programs. CVN 21 relies on common providers for a number of their systems, which are managed by Program Acquisition Resource Managers (PARMs). The CVN 21 Program is also developing a flexible ship infrastructure in areas of the ship that are heavily influenced by the evolutionary nature of computers, displays, and communication technology. This adaptive infrastructure, primarily located in the command center areas of the ship, is designed to allow commercial based computer, display, and communication device technology to evolve without a physical impact to the ship, through the use of standard ship interfaces on the deck, bulkheads, and overhead. This adaptive infrastructure also promotes commonality

with future systems, as equipment can easily be exchanged for new common systems as they become available.

Similarly, the Next Generation Integrated Power System (NGIPS) effort will leverage commercial technology to increase commonality. In the next 30 years, NGIPS will be used to increase commonality on the future ship and submarine designs; plus potential back fit of specific high return-on-investment components in other classes.

Open architected systems and modular designs are two enablers to achieve ship and warfare system consolidation. The business and technical aspects of Open Architecture are being implemented in most new Navy combat systems; however, due to the scope of the modernization effort required across the surface enterprise, it could be 2025 before a full transition to open systems is realized. To accelerate this timeline, within available funding constraints, the Navy is actively studying alternatives that will completely field common open architected systems across the surface enterprise within the next decade.

In terms of modularity, LCS has incorporated a modular design in the Mission Packages. The mechanical, electrical, and data information interfaces between the Mission Modules and the ship are defined by an Interface Control Document (ICD). All future Mission Packages must be designed to conform to the ICD. Within the Mission Packages, there is Mission Package equipment that is common; all three missions use a common Mission Package Computing Environment (MPCE), an H-60 derivative helicopter, and Unmanned Surface Vehicles.

Additionally, the Architectures, Interfaces, and Modular Systems (AIMS) Program has several system and sub-system architectures that are modular. For instance, the FlexTech System, which consists of a track and bracket system with standard interfaces for quick installation and removal of equipment, has shown acquisition and life-cycle savings. This type of system is especially applicable in CIC-type spaces where technology changes rapidly and the cost to remove and install equipment can be prohibitive.

Materials level

Because modularity and common ship components can impact the materials, commonality has also been explored in this area. To take advantage of this commonality, the Navy has explored the option of purchasing materials on a "portfolio" basis, rather than separately for each program. Potential savings come in the form of economic order quantity purchases, regional savings, and commercial leverage. This could allow the Navy to reduce the shipbuilding costs associated with material, which account for approximately 57% of the total shipbuilding costs. This reduction in material costs may also offset the increase in materials costs from increasing the ship modularity.

Another material initiative is used by the DDG 1000 Program. This program has implemented a Class Common Equipment (CCE) standardization effort that includes 119 CCE items that each shipbuilder will use. Through a Parts Standardization Initiative, the program has reduced the use of general material items by 25 percent and has catalogued them in a Common Parts Catalog, which contributes to a highly producible and more

efficient design. The VIRGINIA Class, LCS, and CVN 21 Programs have similar initiatives in place to ensure common components.

Processes

There are commonality-based opportunities for increased effectiveness and efficiency in the naval ship design process. One process change is the Navy Product Data Initiative (NPDI). Under the NPDI project, the shipbuilders, the system vendors, and the Navy are working together to together create a common specification for an integrated product data environment (IPDE) that would be invoked in future Navy contracts. The principal goals are to eliminate duplication of IT systems and enable economical handling of changes that are an intrinsic part of design, construction, or life cycle support.

Navy After Next

As mentioned above, the Navy is currently considering future concepts that could enhance commonality. Although these are not currently part of the Navy's plans, these concepts could provide future guidance. They are considered stretch goals.

Ship level

Entities across the Navy are examining future ways to reduce types and models of ships while improving the standardization of components. A study conducted by Naval Sea Systems Command, called the Affordable Future Fleet Study, evaluated reducing the number of overall hull types beyond current shipbuilding plans. For instance, a potential strategy for surface combatants is to derive CG(X) from DDG 1000 or a DDG 51 replacement from LCS. Another option is to reduce the types of amphibious ships to one type versus three. Using these types of strategies, the NAVSEA study team found that the Navy can potentially reduce hull types to the following:

1. Aircraft carriers: CVN 78
2. Amphibious ships: L(X)
3. CLF: T-AKE
4. T-AO(X) variant
5. SSN/SSBN: Common sub
6. Surface combatants: DDG 1000
7. Surface combatants: DDG 1000 AAW
8. Surface combatants: CG(X) variant
9. Surface combatants: new small focused AAW ship

Hull information:

Ship	Full Load Displacement (t)	Light Ship Displacement (t)	Overall Length (m)	Overall Beam (m)
CVN 78	101,000	82,400	333	40.9
L(X)	35,700	26,600	229	32.3
T-AKE	41,593	24,935	210	32.2
T-AO(X)	42,800	10,200	198	32.2
Common Sub	14,560 submerged		135	12.8
	12,931 surfaced			
DDG-1000	14,800	12,900	186	24.4
DDG-1000 AAW	15,200	13,300	186	24.4
CG(X) Variant	15,200	13,300	186	24.4
Small Focused	4,450	3,660	142	15.4

This analysis is conceptual and would have to be revisited with the requirements team to examine a feasible timeline for implementation and the correct mix of capabilities; however this study does provide a commonality option. By reducing the overall number of hull types, there may be potential for vast reductions in the number of HM&E varieties in the Fleet, which could reduce life cycle logistics costs including the procurement of technical data, training, and supply support associated with the procurement of new equipment. Similarly, there is the potential to reduce procurement cost as compared to the current long range plan because non-recurring costs by reuse of already approved designs. Test and Evaluation savings could also be realized, if common products were tested once vice on every platform. The Navy has devised an Enterprise Test and Evaluation strategy to eliminate redundant testing of common systems, which is being implemented. In order to achieve this commonality, the Navy would have to lead a forum on common components, revised specifications, and revised standards.

System level

At the system level, the Navy plans to reduce the number of combat systems baselines from sixteen to five by 2025. This would be achieved in two ways; through decommissioning or open architecture. By decommissioning surface combatants (FFG 7 Class), conventionally powered aircraft carriers, and amphibious assault ships, the combat systems baselines will be reduced by three. Further reduction will be achieved through the installation of open architecture compliant systems in the existing fleet and in all new construction ships. The resulting ship system would be characterized by common components, revised specifications, and open standards to ensure commonality. Critical to achieving this objective will be delivering a standard warfare systems architecture as part of the system design process. The Navy is engaged in activities designed to migrate warfare system of systems to meet interoperability and openness objectives.

Another alternative concept for systems is to expand the Navy's use of modular systems. Modularity has been pursued for decades, but it is more comprehensively implemented in foreign navies than in the United States. Foreign navies are reported to have achieved acquisition cost reductions without reduction in performance. In the U.S. Navy, the full potential of modularity has not been realized. The stumbling block is that, with the exception of construction modularity (already in place), the cost benefits have been

difficult to quantify. In contrast, it has been easy to eliminate modularity features based on their adverse impact on material cost and weight. Modular systems offer benefits in mission flexibility, while ensuring commonality. Three possible levels of modularity implementation have been identified:

1. Component (minimal) – A continuation of existing design practices. Standard components are used throughout a given ship and an open architecture is maintained for computer systems. A modularity technical warrant holder would be established to maintain standard interfaces for modular elements.
2. Ship/System (medium) – Expands on the component level and uses standard systems and interchangeable payloads. Examples: Danish Stanflex and German Meko ships. Substantial commonality exists within ship classes, and limited commonality may exist across the fleet as well.
3. Fleet (full) – Modularity applied to the fleet as a whole, which would be designed to take advantage of hull commonality, warfare systems supersets, and other opportunities.

Although modularity has been explored at a program level, the Navy could fully evaluate the cost advantages of modularity by considering the entire Navy program plan. Modularity usually adds material cost and weight, so it has historically been a target for short-term cost-cutting. A cross-program approach, considering ship life, technical refresh, and the flexibility to quickly respond to future threats, could establish the business case for modularity.

Materials level

Because modularity and common ship components can impact the materials, commonality has also been explored at the material level. Moving to a reduced number of hull types and awarding long-term commodity-based contracts may not only reduce life cycle costs through the use of common materials, but may also have a positive impact on fleet readiness through increased availability of common materials across ship platforms.

Processes

The Affordable Future Fleet Study also identified four areas of the ship design process where commonality and interoperability are recommended:

- Product data interoperability.
- Concept and feasibility design tools.
- Technical Warrant Holder tools for certification of designs.
- Design community tools coordination.

Future work will examine modifications to these processes to enhance commonality.

CONCLUSIONS DERIVED FROM THE STUDY

Ship system and component commonality has the potential to bring great benefits, in terms of reduced procurement costs, reduced testing and evaluation, reduced training costs, reduced supply costs, shorter delivery schedules, and improved industrial

efficiencies and workload balancing. The Navy has a number of initiatives and processes in place to capture commonality benefits for the Current Navy and the Next Navy. For the Navy After Next, we are working on addressing commonality in several ways. At the highest level, reducing the number of ship hull types will reduce the number of unique systems in the fleet. Regardless of the number of ship hull types, however, open systems architecture and modularity can also support commonality of ship systems. Finally, a portfolio strategy for purchasing materials can ensure cost savings and commonality of materials in the fleet. In order to implement any of the solutions outlined in this report, the Navy needs to examine a corporate strategy and develop a uniform approach for ship system commonality, which may include AoAs, determining requirements document inputs and corporate cost savings tracking through captured metrics. The intent of this report is not to eliminate competitive opportunities, at the system level through sole source arrangements, but to show the potential benefits of ship systems commonality through reducing ship hull types, and awarding common equipment commodity contracts.

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the FY 2007 Senate Armed Services Committee Report 109-254, the enclosed provides an analysis of the costs and benefits of implementing a plan to maximize commonality in the design, integration, and installation of systems into new ships and existing ships.

Ship system commonality has the potential to bring great benefits, in terms of reduced procurement costs, reduced testing and evaluation, reduced training costs, reduced supply costs, shorter delivery schedules, and improved industrial efficiencies and workload balancing. It can be addressed in several ways. At the highest level, reducing the number of ship hull types will reduce the number of unique systems in the fleet. Regardless of the number of ship hull types, however, open systems architecture and modularity can also support commonality of ship systems. Finally, a portfolio strategy for purchasing materials can ensure cost savings and commonality of materials in the fleet. In order to implement commonality, the Navy needs to examine a corporate strategy and develop a uniform approach, which may include Analysis of Alternatives, determining requirements document inputs, and corporate cost savings tracking through captured metrics.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the FY 2007 Senate Armed Services Committee Report 109-254, the enclosed provides an analysis of the costs and benefits of implementing a plan to maximize commonality in the design, integration, and installation of systems into new ships and existing ships.

Ship system commonality has the potential to bring great benefits, in terms of reduced procurement costs, reduced testing and evaluation, reduced training costs, reduced supply costs, shorter delivery schedules, and improved industrial efficiencies and workload balancing. It can be addressed in several ways. At the highest level, reducing the number of ship hull types will reduce the number of unique systems in the fleet. Regardless of the number of ship hull types, however, open systems architecture and modularity can also support commonality of ship systems. Finally, a portfolio strategy for purchasing materials can ensure cost savings and commonality of materials in the fleet. In order to implement commonality, the Navy needs to examine a corporate strategy and develop a uniform approach, which may include Analysis of Alternatives, determining requirements document inputs, and corporate cost savings tracking through captured metrics.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 2 1 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the FY 2007 Senate Armed Services Committee Report 109-254, the enclosed provides an analysis of the costs and benefits of implementing a plan to maximize commonality in the design, integration, and installation of systems into new ships and existing ships.

Ship system commonality has the potential to bring great benefits, in terms of reduced procurement costs, reduced testing and evaluation, reduced training costs, reduced supply costs, shorter delivery schedules, and improved industrial efficiencies and workload balancing. It can be addressed in several ways. At the highest level, reducing the number of ship hull types will reduce the number of unique systems in the fleet. Regardless of the number of ship hull types, however, open systems architecture and modularity can also support commonality of ship systems. Finally, a portfolio strategy for purchasing materials can ensure cost savings and commonality of materials in the fleet. In order to implement commonality, the Navy needs to examine a corporate strategy and develop a uniform approach, which may include Analysis of Alternatives, determining requirements document inputs, and corporate cost savings tracking through captured metrics.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the FY 2007 Senate Armed Services Committee Report 109-254, the enclosed provides an analysis of the costs and benefits of implementing a plan to maximize commonality in the design, integration, and installation of systems into new ships and existing ships.

Ship system commonality has the potential to bring great benefits, in terms of reduced procurement costs, reduced testing and evaluation, reduced training costs, reduced supply costs, shorter delivery schedules, and improved industrial efficiencies and workload balancing. It can be addressed in several ways. At the highest level, reducing the number of ship hull types will reduce the number of unique systems in the fleet. Regardless of the number of ship hull types, however, open systems architecture and modularity can also support commonality of ship systems. Finally, a portfolio strategy for purchasing materials can ensure cost savings and commonality of materials in the fleet. In order to implement commonality, the Navy needs to examine a corporate strategy and develop a uniform approach, which may include Analysis of Alternatives, determining requirements document inputs, and corporate cost savings tracking through captured metrics.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS
ON
VIRGINIA CLASS COST REDUCTION

IN COMPLIANCE WITH THE COMMITTEE REPORT ACCOMPANYING
THE SENATE VERSION OF THE
NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2007

PREPARED BY
PROGRAM EXECUTIVE OFFICE, SUBMARINES
614 SICARD STREET
WASHINGTON NAVY YARD, DC 20376

FEBRUARY 2007

DISTRIBUTION STATEMENT C - Distribution authorized to U.S. Government agencies and their contractors; document contains critical technology (1/04/2007). Other requests for this document shall be referred to ASN (RD&A).

This document contains information exempt from mandatory disclosure under the FOIA. Exemption b(3) applies. This document is approved for dissemination to Congress by ASN (RD&A).

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et seq.) or the Export Administration Act of 1979 (Title 50, U.S.C., App. 2401 et seq.), as amended. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of OPNAVINST 5510.161.

Individual cost reduction activities discussed herein are unclassified, but the compilation of this information reveals the Navy's strategy for producing submarines at lower cost and requires handling as "For Official Use Only" as determined by OPNAV N87.

TABLE OF CONTENTS

TABLE OF CONTENTS ii
LIST OF FIGURES iii
EXECUTIVE SUMMARY ES-1
1.0 Introduction 1
2.0 Design Changes for Cost Reduction 1
2.1 Design Change Process 1
2.2 Design Change Investments 2
2.3 Design Change Benchmarks 4
3.0 Construction Improvements for Cost Reduction 4
3.1 Acceleration of Workforce Learning 4
3.2 Capital Expenditure 5
3.3 Improving Manufacturing Techniques 5
3.4 Applying Lean Concepts to VIRGINIA Class Production 8
3.5 Alternate Approach for Combat Systems 8
3.6 Construction Improvement Benchmarks 9
4.0 Increasing the Procurement Rate under a Multi-Year Contract 10
5.0 Contract Timeline 10
6.0 Conclusion 11

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

LIST OF FIGURES

Figure 1. VIRGINIA Class Cost Reduction Status as of December 2006 ..... ES-2
Figure 2. VIRGINIA Class Design Change Cost Reduction Schedule 2
Figure 3. Alternate Bow Arrangement to Lower VIRGINIA Class Procurement Cost 3
Figure 4. Major Design Change Initiatives 4
Figure 5. Approved CAPEX Projects 5
Figure 6. ONR MANTECH Projects Contribute to Cost Reduction by Developing Technology-Based Solutions for Construction Challenges 6
Figure 7. Current MANTECH Projects in Execution or Under Development 7
Figure 8. Ongoing Construction Process Improvement Projects 8
Figure 9. Target Completion Goals - Measured in Months from Construction Start 9
Figure 10. VIRGINIA Class Block III Contract Timeline 11

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

REQUIREMENT:
The Senate Armed Services Committee Report 109-254 directed the Secretary of the Navy to submit with the FY 2008 President's Budget request a detailed plan for developing cost reduction measures with defined goals and benchmarks for the VIRGINIA Class production program.

EXECUTIVE SUMMARY
In the report of the 2006 Quadrennial Defense Review (QDR), the Department of Defense committed to "Return to a steady-state production rate of two attack submarines per year not later than 2012, while achieving an average per-hull procurement cost objective of $2.0 billion." Lowering the per-hull cost from $2.4 billion to $2.0 billion (FY05) is essential for sustaining the procurement rate needed to preserve the nuclear submarine force structure, while minimizing the impact on the Navy's other platform recapitalization programs. The VIRGINIA Class nuclear submarine cost reduction program consists of three primary elements: 1) design changes for cost reduction, 2) construction improvements for cost reduction, and 3) increasing the procurement rate under a multi-year procurement (MYP) contract with economic order quantity (EOQ) authority. This report describes these elements and provides program goals and the benchmarks the Navy will use to track progress to ensure that cost reduction goals are being achieved.

Design changes for cost reduction: The Navy is working to a goal of $100 million (FY05) in per-hull savings by the FY 2012 ships through changes to the VIRGINIA Class design that lower cost without impacting the ship's capabilities. These changes include simplifying systems, using lower cost components, and implementing the use of technologies to improve construction techniques. The design change effort has begun with a detailed study to identify the aspects of the VIRGINIA Class design that drive cost. The Navy and the shipbuilders are using actual cost data from building the first three ships to determine where changes to the design can reap the greatest cost savings. Guided by the study results, the Navy, the shipbuilders and the major component vendors develop candidate design change proposals for lowering cost. The Navy evaluates each proposal and selects for insertion those shown, through a business case analysis (BCA), to yield a good return on investment with manageable risk to the pace of construction performance improvement. The positive trend of construction performance is another critical aspect of the cost reduction effort. The Navy will insert selected design changes to ships under contract and group others into bundles for insertion in the next block of ships to be procured.

Construction improvements for cost reduction: The Navy has set a per-hull savings goal of $100 million (FY05) by the FY 2012 ships through construction process improvements. The Navy and the shipbuilders are working to accelerate workforce learning by capturing experience gained from VIRGINIA Class ships under construction and using it to produce an optimized construction sequence that minimizes labor hours and cost. The shipbuilders are taking advantage of the Capital Expenditure (CAPEX) incentive of the FY 2004-2008 MYP contract to improve their production infrastructure to enhance construction efficiency. Also, the Navy and the shipbuilders are developing technology-based solutions to address construction challenges and innovative approaches for the installation of complex systems. In combination, these actions target a reduction of the construction period from 84 to 60 months. The Navy will monitor

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

progress by assessing actual schedule performance relative to the shipbuilder's 60 month plan, which provides target completion dates for each hull section and assembly stage.

Increasing the procurement rate under a multi-year contract: By ordering two VIRGINIA hulls in FY 2012 and beyond under an MYP contract with EOQ authority, the Navy will realize per-hull cost savings of $200 million (FY05). Increasing the procurement rate under an MYP contract with EOQ authority is essential for achieving a $2.0 billion (FY05) VIRGINIA Class submarine. The higher production rate enables the shipbuilders to operate more efficiently, accelerate improvements in workforce proficiency, lower per-hull overhead and support costs, and purchase items and commodities from vendors at lower cost.

Cost reduction status: The Navy's investment of $42.8 million in FY 2006 and $68.3 million in FY 2007 has funded the cost driver analysis, the detailed study of the construction process as well as the evaluation and implementation of numerous design change proposals, most of which are still in progress. Savings yielded by completed design changes and process improvements implemented thus far are shown in Figure 1. Savings will continue to accumulate as design change evaluations complete and construction process improvements are implemented.

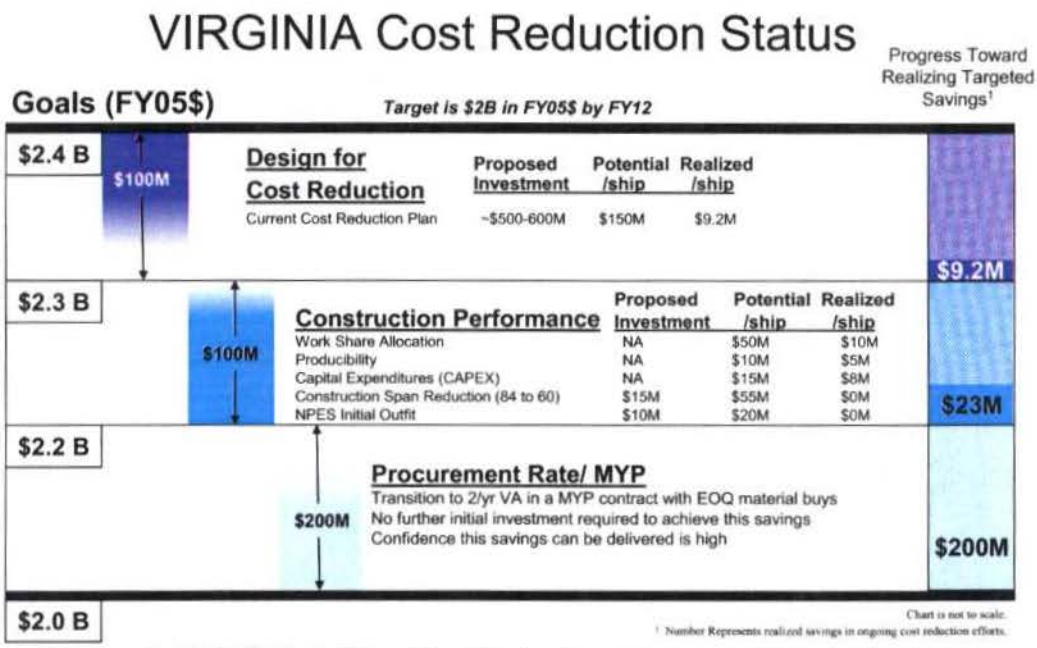


Figure 1. VIRGINIA Class Cost Reduction Status as of December 2006

The VIRGINIA cost reduction program merges the efforts of the government, the shipbuilders and the major component vendors to lower production risk for the VIRGINIA Class submarine in advance of contract award for the next block of ships. Lowering production risk is essential for instilling confidence in the government and the shipbuilders that VIRGINIA Class submarines can be built for the $2.0 billion (FY05) target price. Best results will be achieved by executing the design change and construction improvement efforts as rapidly as resources allow.

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

1.0 Introduction

The Navy established the VIRGINIA Class submarine cost reduction program to guide the plan of actions for lowering VIRGINIA production cost from $2.4 billion to $2.0 billion (FY05) by the FY 2012 ships. The program targets per-hull savings of:

- $100 million (FY05) through changes to the design that will lower cost without impacting capability;
- $100 million (FY05) through construction process improvements; and
- $200 million (FY05) through a stable two-per-year procurement rate under a MYP contract with EOQ authority.

This report describes each aspect of the cost reduction program, including the goals and benchmarks that the Navy is using to ensure that cost reduction goals are being met.

2.0 Design Changes for Cost Reduction

The Navy has set a goal of achieving total per-hull savings of $100 million (FY05) by the FY 2012 ships through changes to the VIRGINIA Class design that will lower cost without impacting the ship's capabilities. The types of changes under consideration include simplifying systems, using lower cost or commercial-off-the-shelf components that meet Navy requirements, and implementing the use of technologies that improve construction techniques.

2.1 Design Change Process

Using the actual construction costs of the first three VIRGINIA Class submarines, the Navy, in coordination with the shipbuilders, is conducting a detailed analysis of the VIRGINIA Class cost drivers. The cost driver analysis guides the formulation of cost reduction proposals submitted by the government, shipbuilders, and major component vendors. The Navy screens each idea on the basis of its potential to deliver savings and the associated technical, schedule, and programmatic risks. Ideas that pass the initial screening are subjected to a Navy-funded evaluation to validate the initial estimate of savings and fully explore the risks. This phase produces an insertion plan and a BCA which incorporate all factors, including the research, development, test and evaluation investment, the complexity of the change and the potential savings. The Navy carefully considers the effect that each design change proposal will have on workforce learning, defined as the trend of improvement that results over time as the workforce gains experience in building the ship. Maintaining the pace of learning is critical for achieving the overall cost targets. To help understand and manage the potential impact of design changes on learning, the Navy has enlisted the support of industry experts using proven models and methods that have been successfully applied to other complex military procurement programs. Complex changes can cause a short-term decrement in learning en route to significant long-term savings, so where feasible, the Navy will accelerate the development and insertion of such changes in order to maximize savings across the class, minimize the effect on learning and lower construction risk for the next planned MYP contract. The Navy will either insert changes on a by-hull basis as

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

contract modifications or incorporate them into a future block design. The Navy will also develop improved design tools to minimize the cost of design changes and future configuration management.

As illustrated in Figure 2, efforts are organized in three areas:

- Program Development – FY 2006 and FY 2007 efforts to identify cost drivers and savings opportunities and develop the program plan;
- FY 2009 Ship Affordability Improvements – Design changes that will mature and be executable in time for the FY 2009-2011 group of ships; and
- FY 2012 Ship Affordability Improvements – Design changes that will not be ready for insertion until the FY 2012 ships. While these changes are currently targeted for the FY 2012 ships, the Navy is making every effort to insert them into the FY 2011 ship, or earlier, to minimize the impact on learning and achieve cost savings sooner.

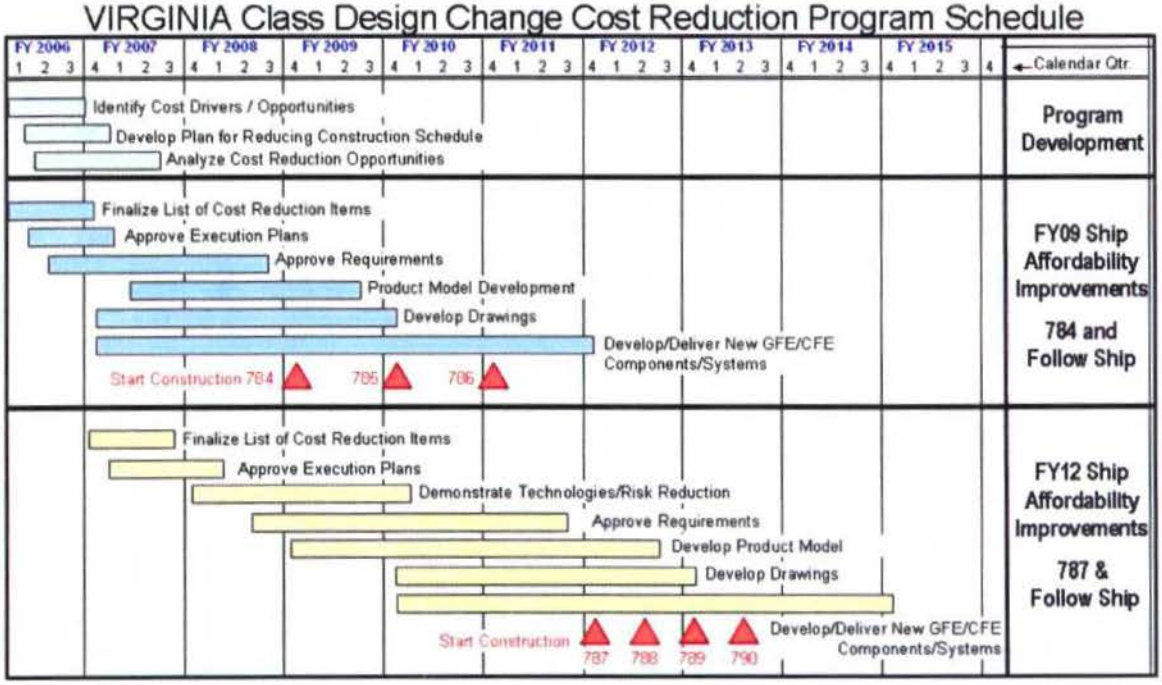


Figure 2. VIRGINIA Class Design Change Cost Reduction Schedule

2.2 Design Change Investments

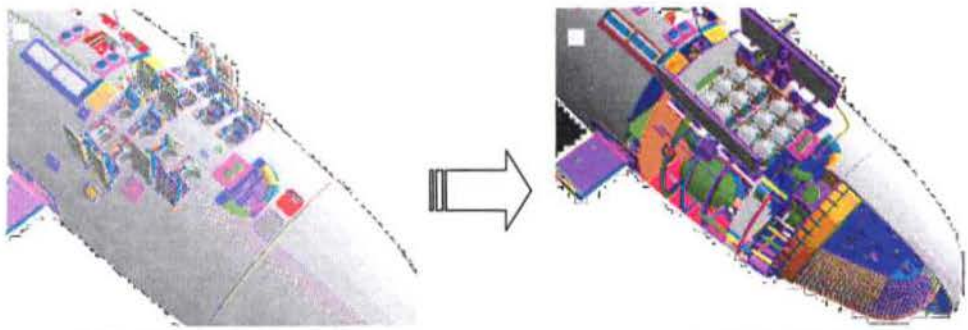
In FY 2006 the Navy invested $42.8 million for the detailed studies needed to guide the design change process and to begin evaluating design change proposals. Proposals include electrifying the weapons stowage and handling system (WSHS), simplifying several propulsion plant

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

systems, incorporating a new reverse osmosis (pure water) unit, and changing the specifications for paints and coatings to lower cost. The Navy also completed preliminary design of the Large Aperture Bow (LAB) array, a lower cost alternative to the current spherical sonar array.

In FY 2007 the Navy will spend $68.3 million to continue the initiatives started in FY 2006 and also fund new investigations of potential cost savings proposals such as a reduced cost weapon system air turbine ejection pump, additional items in the propulsion plant and an alternate bow arrangement concept described below.

The alternative bow arrangement concept features the LAB array and a Payload Interface Module (PIM), a payload bay opening in the bow into which Flexible Payload Modules (FPM) with launchers would be fitted to provide the vertical launch capability. This approach eliminates a costly and labor-intensive process from the construction sequence by replacing the Vertical Launch System (VLS) with a system providing equivalent capability that is easier and less costly to build. With VLS, the complex arrangement of hydraulic and air piping, control valves and mechanical components that provide vertical launch capability are integral to the ship. The payload bay and FPM approach transfers the launcher system components to the FPM, which can be built separate from the ship in a facility optimized for this purpose. This modular approach also creates the potential to develop a less complex way of providing vertical launch capability and the potential to carry a wider array of payloads such as unmanned undersea vehicles, unmanned aerial vehicles and other strike weapons. The PIM approach is illustrated in Figure 3.



VLS Configuration

Bow PIM (with LAB Array) Concept

Figure 3. Alternate Bow Arrangement to Lower VIRGINIA Class Procurement Cost

Electric actuation of the torpedo room WSHS would provide capability equivalent to the current electro-hydraulic controls, but at dramatically lower cost through elimination of over a half mile of hydraulic piping, 20 hydraulic motors, numerous electro-hydraulic control valves, approximately 2,000 controlled welds and almost 1,000 controlled piping bends. It would also contribute to a shorter construction period by enabling the shipbuilder to complete a greater share of pre-testing earlier, during the module outfit phase of construction. These and other major design change proposals being considered are shown in Figure 4 on the next page.

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

Design Changes for Cost Reduction

Weapons Module Electrification	Universal Modular Mast Radar
Direct Seawater Feed and Brine Discharge	Total Ship Monitoring System – Wireless Modification
Vendor Reverse Osmosis Pure Water Unit	Shaft Seal Cooling Water System Modification
Propulsion Lube Oil Simplification	Large Aperture Bow Array
Main Machinery Cost Reduction	VIRGINIA Bow Payload Bay
Damping Material Reductions	Tomahawk Flexible Payload Module
Reduced Cost Weapons System Air Turbine Pump	Light Weight Wide Aperture Array (WAA) Digital Switch
Air Compressor Interstage Membrane Dehydrator	Conformal Acoustic Velocity Sensor (CAVES) WAA
Lower Cost Integrated Low Pressure Electrolyzer	Propulsion Plant Design Changes

Figure 4. Major Design Change Initiatives

2.3 Design Change Benchmarks

The Navy will track progress in cost reduction from design changes as the sum of projected savings from all approved design change proposals. The projection of savings for each proposal will be as determined by the completed BCA. The savings are considered to be achieved when the change has been fully costed by cost engineers and the expected savings are agreed to by the government and the shipbuilder on an item-by-item basis. This is the best available measure and benchmark of savings short of a signed construction contract that prices all design changes and their interacting effects. The negotiated price is the final measure of savings achieved.

3.0 Construction Improvements for Cost Reduction

The Navy has set a per-hull savings goal of $100 million (FY05) by the FY 2012 ships through construction process improvements, which collectively, will shorten the construction sequence from 84 to 60 months. Shortening the construction period to 60 months is an essential element for achieving the $100 million (FY05) goal. Cost savings result from reducing the number of labor hours required to build the ship and lowering the shipbuilder's overhead and support costs.

3.1 Acceleration of Workforce Learning

The Navy and the shipbuilders are working to accelerate the savings that result from workforce learning by capturing experience gained from VIRGINIA Class ships under construction and using it to produce an optimized construction sequence that minimizes labor hours and cost. The effort involves a detailed analysis of the fabrication of each major hull section and each aspect of the outfitting phase. It focuses initially on the highest labor cost drivers, those processes shown by actual data to expend the greatest number of man-hours and which have been shown to impose construction delays. Major tasks are broken down into individual work paths so that delays and inefficiencies can be identified and addressed in a more efficient sequence. In some cases, tasks that presently control the schedule can be moved to an earlier, less limiting phase of

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

construction or from the waterfront back to the manufacturing environment where open hull sections provide easier access and greater labor efficiency.

3.2 Capital Expenditure

The shipbuilders are taking advantage of the CAPEX incentive of the FY 2004 - 2008 MYP contract to make improvements to their production infrastructure that will enhance construction efficiency and lower cost. A CAPEX project for a Sheet Metal Light Fabrication Facility has been completed and has yielded favorable results. A module transportation project will lower construction cost by facilitating the transport of larger hull sections between Quonset Point RI, Newport News, VA and Groton, CT. Building fewer, larger hull sections enables a higher level of completion for individual modules in the manufacturing environment where labor efficiency is greater. Approved CAPEX projects are shown in Figure 5. As shown in Figure 1, the CAPEX projects will save approximately $8 million (FY05) per hull starting with HAWAII, the third ship of the class. The Navy is continuing to evaluate additional CAPEX project proposals.

Project Description
Sheet Metal Light Fabrication Facility Project
Module Transportation Project
Northrop Grumman Newport News Module Outfitting Facility Upgrade
Quonset Point Coating Facility Project
Horizontal Machining Center Upgrade

Figure 5. Approved CAPEX Projects

3.3 Improving Manufacturing Techniques

The Navy is also introducing technology-based solutions for lowering construction cost through improved labor efficiency and more efficient manufacturing and construction techniques. Below are a few examples.

- The VIRGINIA Class design uses fiber optic cabling throughout the ship. Mating fiber optic cables using standard connectors is labor intensive and sensitive to the industrial environment. Failure of fiber optic connectors adds labor hours and cost. The Navy has adopted the simpler and more effective fusion splicing technique to reduce the time to mate connectors and reduce the incidence of failure and rework.

- The Manufacturing Technology (MANTECH) Program, managed and funded by the Office of Naval Research (ONR), develops technology-based solutions for practical challenges in the construction process. MANTECH projects are pursuing the expanded use of composite materials to lower the cost and weight of VIRGINIA components such as the main seawater

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

pump impeller and the sail cusp (the leading edge fairing at the base of the sail). MANTECH projects also target improvements in construction efficiency. Figure 6 illustrates two projects:

- Optimization of the construction sequence at Northrop Grumman Newport News' (NGNN) modular outfitting facility (left and center); and
- Product-Centric Facility Design – an effort to lower labor cost while improving welding performance by maximizing use of the Precision Automated Welding System (PAWS) for fabrication of major structural units (right).



Figure 6. ONR MANTECH Projects Contribute to Cost Reduction by Developing Technology-Based Solutions for Construction Challenges

MANTECH is also developing improved techniques for joining and fitting thin wall piping, a critical aspect of submarine construction. Figure 7, on the next page, presents a list of current MANTECH projects in execution or under development.

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

MANTECH Projects in Execution

Product Centric Facility Design - Steel Fabrication	Weld Distortion Prediction
Ultralight Gas Metal Arc Welding	Propulsor Affordability Initiative
Computed Radiography	

MANTECH Projects under Development

Improve the Efficiency of the Outfitting Process	Alternative Damping Material Application
Develop and Implement a World Class Design for Production Process for Submarines	Reduced Cost Application of Special Hull Treatment/Mold-in-Place Coating
Material Storage, Flow, Tracking and Space Utilization Process Optimization	Integrated Time Domain Multiplexing Switching, Laser and Laser Modulation Assembly
Alternative Pipe Fittings	Integrated Optical Blocking - Multi-Pole Optical Switch
Welding and Joining of Inconel 625 Piping	Low Cost, Highly reliable Fiber Optic Accelerometers
Automated Welding Technique	Time Division Multiplexed Telemetry
Small Weldment Fabrication Process Improvements	Improved Blast and Paint Processes
Virtual Reality Training for Welders	Low Cost Composite Sail Cusp
Laser Image Projection	Composite Main Ballast Tank Flood Grates
Optimized Cladding Cell Development and Implementation	Composite Control Surfaces
Fiber Optic CAVES	Cast-in-Place Bow Dome Boot
CAVES Materials	Composite Air Turbine Pump Impeller
Pultruded Towed Array Fairings	Low Cost Composite Air Turbine Pump Muffler
Chin Array Fairing Cover	Composite Propulsor
Integrated Testing Development	Part Marking and Labeling

Figure 7. Current MANTECH Projects in Execution or Under Development

- The shipbuilders are pursuing new rapid-curing paints and improved painting techniques to reduce paint-related work delays from days to hours. These and other producibility improvements will yield savings of $5 million (FY05) per hull. The shipbuilders and the Navy are also investigating paint systems that will improve life cycle performance.

- The Navy is using funding added to the budget by Congress to investigate reduced cost manufacturing techniques for the composite bow sonar dome.

- In addition to the General Dynamics Electric Boat and NGNN CAPEX and ONR MANTECH efforts, the Navy is investigating a variety of other construction process improvement initiatives for achieving the goal of shortening the construction sequence.

Figure 8, on the next page, lists some of these projects.

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

Construction Improvements for Cost Reduction

84-to-60 Month Schedule Reduction Planning	Paint and Coating Process Improvement
Material Systems Supply Chain Reengineering	Poly Shielding Implementation
Critical Work Centers Reengineering	Enterprise Analysis and Improvement Task
Improved Material Procurement Process	Electronic Sign-off of Line Items
Early Identification and Action for Repair Parts	Implement an Atmospheric Database
Mold-in-Place Vendor & Resource Capacity Assessment	Enhanced Laser Marking
Contractor Furnished Equipment Vendor Assessment	Improved Sheet Metal Product Fabrication
Producibility Improvements	Hatch Improvement Program
Fusion Splicing of Fiber Optic Cables	Engineering Support Services Cost Reduction
Eliminate Post Bravo Sea Trials Dry Dock Period	

Figure 8. Ongoing Construction Process Improvement Projects

3.4 Applying Lean Concepts to VIRGINIA Class Production

The Navy is applying Lean Six Sigma principles to achieve construction savings by improving a wide array of processes associated with VIRGINIA Class production. Lean complements parallel efforts by the shipbuilders to shorten the construction sequence. Processes targeted for improvement range from relatively small but recurrent functions, such as improving supervisor access to technical information in order to minimize time away from the job site, to major tasks such as improving the success of hull section assembly. The Navy is also applying Lean principles to all aspects of the government-shipbuilder interface to identify and eliminate any potential inefficiency. The Lean initiatives supporting VIRGINIA Class cost reduction are a high Navy priority. They are among a select group of Lean functions for which progress is routinely reported to the Secretary of the Navy.

3.5 Alternate Approach for Combat Systems

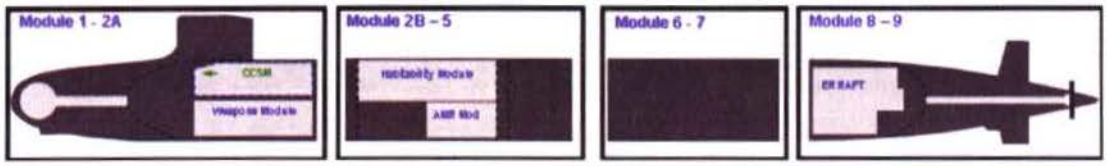
The Navy is exploring the potential to lower construction cost and shorten the construction period by changing the way that the submarine is provided its combat capabilities. Under current practice, each VIRGINIA is fitted with a fully capable combat system matching the Fleet configuration that existed at the time of contract award. This approach provides combat capabilities that will not be used during sea trials and which will be outdated upon delivery, creating the need for a costly update to the most current Fleet configuration following delivery of the ship. One alternative under consideration would install a set of combat capabilities during construction sufficient for sea trials, and then upgrade them to the most current configuration following the ship's shakedown period. The initial "sea trials system" would be less expensive to install and test, and could use components recovered from upgrading an earlier ship. As another alternative, the Navy is conducting a Lean Value Stream Analysis to assess delaying installation of the combat systems until closer to sea trials. Doing so would deliver the ship with a newer

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

configuration, thus eliminating the need for an extensive update (as currently required) after delivery.

3.6 Construction Improvement Benchmarks

In combination, the efforts being pursued to improve construction performance will shorten the construction period from 84 to 60 months and yield per-hull savings of $100 million (FY05) by reducing shipbuilder labor and lowering shipbuilder overhead and support costs. The Navy will monitor progress in achieving the goal by assessing actual schedule performance relative to the shipbuilders' 60 month plan which provides target completion timelines for each major module and assembly stage in months from construction start. A depiction of the plan to reach the 60 month goal is illustrated in Figure 9. As shown in the figure, the improved construction sequence, which produces four major modules of higher completion, began with SSN 778. Construction of prior ships involved as many as ten modules of lesser completion.



Ship	Start	Major Module Construction				Final Assembly to Delivery			Delivery (Actual or Goal)
		6/7	8/9	1/2A	2B/5	Pressure Hull Complete	Float-off	Delivery	
774	0	An improved construction sequence featuring four major modules with higher level of completion prior to final assembly was phased in on SSN 774-777 with full implementation beginning with SSN 778.				63	72	86	10/12/04
775	0					62	79	94	6/20/06
776	0					70	78	86	12/22/06
777	0					65	73	81	12/17/07
778	0	38	52	52	55	57	65	73	10/30/08
779	0	28	41	46	48	50	60	68	10/24/09
780	0	36	48	47	49	53	59	65	7/30/10
781	0	28	43	44	47	48	57	66	7/30/11
782	0	31	45	43	47	49	56	63	4/30/12
783	0	26	42	42	47	49	57	63	4/30/13
784 (Rev. 5)	0	27	42	41	45	47	54	63	2/25/14
784 (Goal)	0	24	40	41	44	46	53	60	11/30/13

Figure 9. Target Completion Goals - Measured in Months from Construction Start

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

4.0 Increasing the Procurement Rate under a Multi-Year Contract

The greatest per-hull savings will result from increasing the production rate in a MYP contract with EOQ authority. Increasing the VIRGINIA production rate will produce savings in several ways:

- Lower per-hull shipbuilder overhead costs – Fixed overhead cost at construction facilities will be distributed among a greater number of ships, lowering the per-hull cost.

- Lower cost for ship components – Increased demand for major ship components to support a higher build rate will yield additional savings because major component vendors will produce at greater efficiency and will be able to spread their per-unit fixed overhead costs across a greater number of components.

- Accelerated learning at the shipbuilder facilities – A higher production rate will further accelerate workforce learning, improve construction efficiency and lower production cost by decreasing total labor hours.

- Lower cost for raw materials – Shipbuilders will be able to contract for a higher volume of raw material, such as steel and other commodities needed for the construction process, achieving a lower price.

- Potential to increase competition – Along with design changes favoring commercial specifications, the higher procurement rate for components and commodities resulting from a higher VIRGINIA build rate may attract the participation of additional vendors and yield further savings through competition.

The savings that result from a higher build rate under an MYP contract with EOQ material buys will yield per-hull savings of $200 million (FY05). Increasing the procurement rate in a MYP contract with EOQ authority is a critical aspect of achieving a $2.0 billion (FY05) VIRGINIA by FY 2012.

5.0 Contract Timeline

As described in this report, the VIRGINIA Class cost reduction effort pursues savings through:

- Changes to the class design to lower cost while maintaining capability;
- Production process improvements to reduce labor hours and shorten the construction period; and
- Increasing the procurement rate in a MYP contract with EOQ authority.

All three of these elements must come together in order to develop confidence that the FY 2012 VIRGINIA Class ships can be built for the target price of $2.0 billion (FY05). Confidence on the part of the Navy and the shipbuilders is critical for negotiating a contract for the target price.

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

The cost reduction effort is driven by the timeline for negotiating the next block of VIRGINIA Class ships, illustrated in Figure 10 (below). The Navy must finalize the ship design in the request for proposal, scheduled to be released in September 2007. For this reason, it is imperative that the design change and construction process improvement efforts proceed as quickly as funding allows.

VIRGINIA Class Block III Contract Timeline	
Feb 2007	Submit request for MYP approval to Congress
Dec 2006 – Jul 2007	Develop acquisition strategy, plan & approvals
Aug 2007	Obtain sole-source procurement authority from Milestone Decision Authority - USD (AT&L)
Sep 2007	Release Request for Proposal
Jan 2008	Receive shipbuilder proposal
Jan – Apr 2008	Evaluate shipbuilder proposal
Mar – Aug 2008	Negotiate contract
Sep 2008	Secretary of Defense certifies to Congress that the program is fully funded in the Future-Years Defense Program
Oct 2008	Award contract

Figure 10. VIRGINIA Class Block III Contract Timeline

6.0 Conclusion

The VIRGINIA Class cost reduction program is underway and progressing toward the goal of lowering per-hull VIRGINIA construction cost from the current $2.4 billion (FY05) to the target price of $2.0 billion (FY05) by the FY 2012 ships. Lowering VIRGINIA cost is critical for achieving and sustaining the higher production level, in FY 2012 and beyond, called for in the Navy's Annual Long-Range Plan for the Construction of Naval Vessels for FY 2008. Success in achieving the cost reduction goal and enabling the higher procurement rate requires that the parallel thrusts of design changes for cost reduction and construction process improvements be pursued as rapidly as funding allows.

Distribution limited to U.S. Government Agencies and their contractors.
WARNING: Export restricted by the Arms Export Control Act.

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit, with the Fiscal Year 2008 President's Budget request, a detailed plan for developing cost reduction measures with defined goals and benchmarks for the VIRGINIA Class production program.

Lowering the per-hull cost from $2.4 billion to $2.0 billion (FY 2005) is essential for sustaining the procurement rate needed to preserve the nuclear submarine force structure, while minimizing the impact on the Navy's other platform recapitalization programs. The VIRGINIA Class nuclear submarine cost reduction program consists of three primary elements: 1) design changes for cost reduction, 2) construction improvements for cost reduction, and 3) increasing the procurement rate under a multi-year procurement (MYP) contract with economic order quantity (EOQ) authority. The enclosed report describes these elements and provides program goals and the benchmarks the Navy will use to track progress to ensure that cost reduction goals are being achieved.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit, with the Fiscal Year 2008 President's Budget request, a detailed plan for developing cost reduction measures with defined goals and benchmarks for the VIRGINIA Class production program.

Lowering the per-hull cost from $2.4 billion to $2.0 billion (FY 2005) is essential for sustaining the procurement rate needed to preserve the nuclear submarine force structure, while minimizing the impact on the Navy's other platform recapitalization programs. The VIRGINIA Class nuclear submarine cost reduction program consists of three primary elements: 1) design changes for cost reduction, 2) construction improvements for cost reduction, and 3) increasing the procurement rate under a multi-year procurement (MYP) contract with economic order quantity (EOQ) authority. The enclosed report describes these elements and provides program goals and the benchmarks the Navy will use to track progress to ensure that cost reduction goals are being achieved.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit, with the Fiscal Year 2008 President's Budget request, a detailed plan for developing cost reduction measures with defined goals and benchmarks for the VIRGINIA Class production program.

Lowering the per-hull cost from $2.4 billion to $2.0 billion (FY 2005) is essential for sustaining the procurement rate needed to preserve the nuclear submarine force structure, while minimizing the impact on the Navy's other platform recapitalization programs. The VIRGINIA Class nuclear submarine cost reduction program consists of three primary elements: 1) design changes for cost reduction, 2) construction improvements for cost reduction, and 3) increasing the procurement rate under a multi-year procurement (MYP) contract with economic order quantity (EOQ) authority. The enclosed report describes these elements and provides program goals and the benchmarks the Navy will use to track progress to ensure that cost reduction goals are being achieved.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

FEB 21 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Senate Armed Services Committee Report 109-254 requested the Secretary of the Navy submit, with the Fiscal Year 2008 President's Budget request, a detailed plan for developing cost reduction measures with defined goals and benchmarks for the VIRGINIA Class production program.

Lowering the per-hull cost from $2.4 billion to $2.0 billion (FY 2005) is essential for sustaining the procurement rate needed to preserve the nuclear submarine force structure, while minimizing the impact on the Navy's other platform recapitalization programs. The VIRGINIA Class nuclear submarine cost reduction program consists of three primary elements: 1) design changes for cost reduction, 2) construction improvements for cost reduction, and 3) increasing the procurement rate under a multi-year procurement (MYP) contract with economic order quantity (EOQ) authority. The enclosed report describes these elements and provides program goals and the benchmarks the Navy will use to track progress to ensure that cost reduction goals are being achieved.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the House Appropriations Committee's report on the fiscal year 2007 Defense Appropriations Bill, the enclosed report compares current and projected torpedo inventory levels against the required levels, and addresses the Navy's plan regarding shortfalls.

The torpedo inventory program of record detailed in the President's fiscal year 2008 budget request provides the best balance between anticipated resources and requirements, and supports the Navy's operational plans.

If I can be of further assistance, please let me know. A copy of this report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the House Appropriations Committee's report on the fiscal year 2007 Defense Appropriations Bill, the enclosed report compares current and projected torpedo inventory levels against the required levels, and addresses the Navy's plan regarding shortfalls.

The torpedo inventory program of record detailed in the President's fiscal year 2008 budget request provides the best balance between anticipated resources and requirements, and supports the Navy's operational plans.

If I can be of further assistance, please let me know. A copy of this report is also being provided to Chairmen Inouye, Skelton, and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

CONFIDENTIAL

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the House Appropriations Committee's report on the fiscal year 2007 Defense Appropriations Bill, the enclosed report compares current and projected torpedo inventory levels against the required levels, and addresses the Navy's plan regarding shortfalls.

The torpedo inventory program of record detailed in the President's fiscal year 2008 budget request provides the best balance between anticipated resources and requirements, and supports the Navy's operational plans.

If I can be of further assistance, please let me know. A copy of this report is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

CONFIDENTIAL

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the House Appropriations Committee's report on the fiscal year 2007 Defense Appropriations Bill, the enclosed report compares current and projected torpedo inventory levels against the required levels, and addresses the Navy's plan regarding shortfalls.

The torpedo inventory program of record detailed in the President's fiscal year 2008 budget request provides the best balance between anticipated resources and requirements, and supports the Navy's operational plans.

If I can be of further assistance, please let me know. A copy of this report is also being provided to Chairmen Levin, Inouye, and Skelton.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

CONFIDENTIAL

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed Navy to report to Congress on the Navy's current and future sonobuoy inventory as well as planned sonobuoy annual usage rates through the year 2020.

The attached report shows our current inventory and inventory projection based on the 2008 President's Budget submission and supporting Navy Non-Nuclear Ordnance Requirements document 2008. Additionally, the report depicts our projected annual usage rates for non-combat related training and operations. The Non-Nuclear Ordnance Requirement and Non-Combat Expenditure Allocation are reviewed annually. Any resulting refinements to the total sonobuoy requirement will inform subsequent budget cycles.

If I can be of any further assistance, please let me know. A copy of this report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed Navy to report to Congress on the Navy's current and future sonobuoy inventory as well as planned sonobuoy annual usage rates through the year 2020.

The attached report shows our current inventory and inventory projection based on the 2008 President's Budget submission and supporting Navy Non-Nuclear Ordnance Requirements document 2008. Additionally, the report depicts our projected annual usage rates for non-combat related training and operations. The Non-Nuclear Ordnance Requirement and Non-Combat Expenditure Allocation are reviewed annually. Any resulting refinements to the total sonobuoy requirement will inform subsequent budget cycles.

If I can be of any further assistance, please let me know. A copy of the report is also being provided to Chairman Levin, Chairman Inouye, and Chairman Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed Navy to report to Congress on the Navy's current and future sonobuoy inventory as well as planned sonobuoy annual usage rates through the year 2020.

The attached report shows our current inventory and inventory projection based on the 2008 President's Budget submission and supporting Navy Non-Nuclear Ordnance Requirements document 2008. Additionally, the report depicts our projected annual usage rates for non-combat related training and operations. The Non-Nuclear Ordnance Requirement and Non-Combat Expenditure Allocation are reviewed annually. Any resulting refinements to the total sonobuoy requirement will inform subsequent budget cycles.

If I can be of any further assistance, please let me know. A copy of this report is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

CONFIDENTIAL

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

CONFIDENTIAL – Unclassified upon removal of enclosure

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed the Navy to report to Congress on the Navy's current and future sonobuoy inventory as well as planned sonobuoy annual usage rates through the year 2020.

The attached report shows our current inventory and inventory projection based on the 2008 President's Budget submission and supporting Navy Non-Nuclear Ordnance Requirements document 2008. Additionally, the report depicts our projected annual usage rates for non-combat related training and operations. The Non-Nuclear Ordnance Requirement and Non-Combat Expenditure Allocation are reviewed annually. Any resulting refinements to the total sonobuoy requirement will inform subsequent budget cycles.

If I can be of any further assistance, please let me know. A copy of this report is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JAN 30 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed that the Navy review the situation regarding currency fluctuation losses that have occurred on the T-AKE main propulsion diesel engine contract and submit a plan for addressing this situation to the congressional defense committees not later than February 1, 2007.

On October 18, 2001, the Navy awarded a fixed price incentive contract to National Steel and Shipbuilding Company (NASSCO) for construction of up to 12 Dry Cargo/Ammunition ships (T-AKE). The contract, priced in U.S. dollars, included priced options for eleven follow ships, and included an Economic Price Adjustments (EPA) clause to protect both the Navy and the contractor from volatility in labor and material markets. The EPA clause consists of Bureau of Labor Statistics (BLS) indices, Iron and Steel, General Purpose Machinery and Electrical Machinery, with a tolerance band of plus or minus five percent. Neither this clause, nor any other provision of NASSCO's contract, provides for a cost adjustment in the event of any currency fluctuation.

NASSCO designed the T-AKE class and commenced construction of the first nine ships with selected equipment from foreign suppliers. The T-AKE main propulsion diesel engine subcontractor, Fairbanks Morse, and other NASSCO subcontractors have alleged losses due to foreign exchange rate differences to the dollar. Fairbanks Morse has reported increased material costs in the amount of $6.6 million for the first six ship sets. NASSCO maintains that on July 25, 2001, the date that it submitted its best and final offer, the U.S. dollar was equivalent to 1.14093 EUR. However, on October 18, 2001, the date of the award of the lead and first follow ship, the exchange rate declined to one U.S. dollar to 1.10687 EUR, constituting a three percent decline in the exchange rate between the currencies.

NASSCO further contends that as the Navy exercised the options for T-AKEs 3 through 8 over the next four years, the exchange rate between the two currencies experienced a total deterioration of 33 percent as the exchange rate fell to one U.S. dollar to 0.75850 EUR as of March 1, 2005. Although NASSCO assumed the exchange risk on

the behalf of some of the suppliers, other vendors made the business decision to assume the exchange rate risk on their own by pricing the foreign content of their materials in U.S. dollars.

NASSCO has brought these foreign currency exchange rate issues to the attention of the Navy in the form of a contract problem identification report. NASSCO has not submitted a formal claim or a request for equitable adjustment to the contract on the issue of currency fluctuations.

The Navy's contractual obligation to NASSCO is to compensate them for "escalation" that is above the band that is set forth in the EPA clause. As described above, the Navy prime contract with NASSCO does not address currency exchange rate fluctuation issues. As a result, the contract places the risk of currency fluctuation on NASSCO, and it was NASSCO's responsibility to cover such contingency as it best saw fit in pricing its T-AKE contract proposal. One approach that NASSCO or its subcontractors could have pursued to address this risk was purchase of exchange rate hedge contracts. NASSCO and its subcontractors made the business decision not to do so. For these reasons, NASSCO has no entitlement to a cost adjustment to the T-AKE contract due to losses incurred from currency fluctuations.

In conclusion, the Navy will evaluate the potential risk due to foreign exchange fluctuation on future contracts. However, prime contractors are in a better position than the Government to assess the extent of the risk to its planned suppliers and to price any offer it submits to the Navy accordingly.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JAN 30 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed that the Navy review the situation regarding currency fluctuation losses that have occurred on the T-AKE main propulsion diesel engine contract and submit a plan for addressing this situation to the congressional defense committees not later than February 1, 2007.

On October 18, 2001, the Navy awarded a fixed price incentive contract to National Steel and Shipbuilding Company (NASSCO) for construction of up to 12 Dry Cargo/Ammunition ships (T-AKE). The contract, priced in U.S. dollars, included priced options for eleven follow ships, and included an Economic Price Adjustments (EPA) clause to protect both the Navy and the contractor from volatility in labor and material markets. The EPA clause consists of Bureau of Labor Statistics (BLS) indices, Iron and Steel, General Purpose Machinery and Electrical Machinery, with a tolerance band of plus or minus five percent. Neither this clause, nor any other provision of NASSCO's contract, provides for a cost adjustment in the event of any currency fluctuation.

NASSCO designed the T-AKE class and commenced construction of the first nine ships with selected equipment from foreign suppliers. The T-AKE main propulsion diesel engine subcontractor, Fairbanks Morse, and other NASSCO subcontractors have alleged losses due to foreign exchange rate differences to the dollar. Fairbanks Morse has reported increased material costs in the amount of $6.6 million for the first six ship sets. NASSCO maintains that on July 25, 2001, the date that it submitted its best and final offer, the U.S. dollar was equivalent to 1.14093 EUR. However, on October 18, 2001, the date of the award of the lead and first follow ship, the exchange rate declined to one U.S. dollar to 1.10687 EUR, constituting a three percent decline in the exchange rate between the currencies.

NASSCO further contends that as the Navy exercised the options for T-AKEs 3 through 8 over the next four years, the exchange rate between the two currencies experienced a total deterioration of 33 percent as the exchange rate fell to one U.S. dollar to 0.75850 EUR as of March 1, 2005. Although NASSCO assumed the exchange risk on the behalf of some of the suppliers, other vendors made the business decision to assume

the exchange rate risk on their own by pricing the foreign content of their materials in U.S. dollars.

NASSCO has brought these foreign currency exchange rate issues to the attention of the Navy in the form of a contract problem identification report. NASSCO has not submitted a formal claim or a request for equitable adjustment to the contract on the issue of currency fluctuations.

The Navy's contractual obligation to NASSCO is to compensate them for "escalation" that is above the band that is set forth in the EPA clause. As described above, the Navy prime contract with NASSCO does not address currency exchange rate fluctuation issues. As a result, the contract places the risk of currency fluctuation on NASSCO, and it was NASSCO's responsibility to cover such contingency as it best saw fit in pricing its T-AKE contract proposal. One approach that NASSCO or its subcontractors could have pursued to address this risk was purchase of exchange rate hedge contracts. NASSCO and its subcontractors made the business decision not to do so. For these reasons, NASSCO has no entitlement to a cost adjustment to the T-AKE contract due to losses incurred from currency fluctuations.

In conclusion, the Navy will evaluate the potential risk due to foreign exchange fluctuation on future contracts. However, prime contractors are in a better position than the Government to assess the extent of the risk to its planned suppliers and to price any offer it submits to the Navy accordingly.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JAN 30 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed that the Navy review the situation regarding currency fluctuation losses that have occurred on the T-AKE main propulsion diesel engine contract and submit a plan for addressing this situation to the congressional defense committees not later than February 1, 2007.

On October 18, 2001, the Navy awarded a fixed price incentive contract to National Steel and Shipbuilding Company (NASSCO) for construction of up to 12 Dry Cargo/Ammunition ships (T-AKE). The contract, priced in U.S. dollars, included priced options for eleven follow ships, and included an Economic Price Adjustments (EPA) clause to protect both the Navy and the contractor from volatility in labor and material markets. The EPA clause consists of Bureau of Labor Statistics (BLS) indices, Iron and Steel, General Purpose Machinery and Electrical Machinery, with a tolerance band of plus or minus five percent. Neither this clause, nor any other provision of NASSCO's contract, provides for a cost adjustment in the event of any currency fluctuation.

NASSCO designed the T-AKE class and commenced construction of the first nine ships with selected equipment from foreign suppliers. The T-AKE main propulsion diesel engine subcontractor, Fairbanks Morse, and other NASSCO subcontractors have alleged losses due to foreign exchange rate differences to the dollar. Fairbanks Morse has reported increased material costs in the amount of $6.6 million for the first six ship sets. NASSCO maintains that on July 25, 2001, the date that it submitted its best and final offer, the U.S. dollar was equivalent to 1.14093 EUR. However, on October 18, 2001, the date of the award of the lead and first follow ship, the exchange rate declined to one U.S. dollar to 1.10687 EUR, constituting a three percent decline in the exchange rate between the currencies.

NASSCO further contends that as the Navy exercised the options for T-AKEs 3 through 8 over the next four years, the exchange rate between the two currencies experienced a total deterioration of 33 percent as the exchange rate fell to one U.S. dollar to 0.75850 EUR as of March 1, 2005. Although NASSCO assumed the exchange risk on the behalf of some of the suppliers, other vendors made the business decision to assume

the exchange rate risk on their own by pricing the foreign content of their materials in U.S. dollars.

NASSCO has brought these foreign currency exchange rate issues to the attention of the Navy in the form of a contract problem identification report. NASSCO has not submitted a formal claim or a request for equitable adjustment to the contract on the issue of currency fluctuations.

The Navy's contractual obligation to NASSCO is to compensate them for "escalation" that is above the band that is set forth in the EPA clause. As described above, the Navy prime contract with NASSCO does not address currency exchange rate fluctuation issues. As a result, the contract places the risk of currency fluctuation on NASSCO, and it was NASSCO's responsibility to cover such contingency as it best saw fit in pricing its T-AKE contract proposal. One approach that NASSCO or its subcontractors could have pursued to address this risk was purchase of exchange rate hedge contracts. NASSCO and its subcontractors made the business decision not to do so. For these reasons, NASSCO has no entitlement to a cost adjustment to the T-AKE contract due to losses incurred from currency fluctuations.

In conclusion, the Navy will evaluate the potential risk due to foreign exchange fluctuation on future contracts. However, prime contractors are in a better position than the Government to assess the extent of the risk to its planned suppliers and to price any offer it submits to the Navy accordingly.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

JAN 30 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2007 House Appropriations Committee Report 109-504 directed that the Navy review the situation regarding currency fluctuation losses that have occurred on the T-AKE main propulsion diesel engine contract and submit a plan for addressing this situation to the congressional defense committees not later than February 1, 2007.

On October 18, 2001, the Navy awarded a fixed price incentive contract to National Steel and Shipbuilding Company (NASSCO) for construction of up to 12 Dry Cargo/Ammunition ships (T-AKE). The contract, priced in U.S. dollars, included priced options for eleven follow ships, and included an Economic Price Adjustments (EPA) clause to protect both the Navy and the contractor from volatility in labor and material markets. The EPA clause consists of Bureau of Labor Statistics (BLS) indices, Iron and Steel, General Purpose Machinery and Electrical Machinery, with a tolerance band of plus or minus five percent. Neither this clause, nor any other provision of NASSCO's contract, provides for a cost adjustment in the event of any currency fluctuation.

NASSCO designed the T-AKE class and commenced construction of the first nine ships with selected equipment from foreign suppliers. The T-AKE main propulsion diesel engine subcontractor, Fairbanks Morse, and other NASSCO subcontractors have alleged losses due to foreign exchange rate differences to the dollar. Fairbanks Morse has reported increased material costs in the amount of $6.6 million for the first six ship sets. NASSCO maintains that on July 25, 2001, the date that it submitted its best and final offer, the U.S. dollar was equivalent to 1.14093 EUR. However, on October 18, 2001, the date of the award of the lead and first follow ship, the exchange rate declined to one U.S. dollar to 1.10687 EUR, constituting a three percent decline in the exchange rate between the currencies.

NASSCO further contends that as the Navy exercised the options for T-AKEs 3 through 8 over the next four years, the exchange rate between the two currencies experienced a total deterioration of 33 percent as the exchange rate fell to one U.S. dollar to 0.75850 EUR as of March 1, 2005. Although NASSCO assumed the exchange risk on the behalf of some of the suppliers, other vendors made the business decision to assume

the exchange rate risk on their own by pricing the foreign content of their materials in U.S. dollars.

NASSCO has brought these foreign currency exchange rate issues to the attention of the Navy in the form of a contract problem identification report. NASSCO has not submitted a formal claim or a request for equitable adjustment to the contract on the issue of currency fluctuations.

The Navy's contractual obligation to NASSCO is to compensate them for "escalation" that is above the band that is set forth in the EPA clause. As described above, the Navy prime contract with NASSCO does not address currency exchange rate fluctuation issues. As a result, the contract places the risk of currency fluctuation on NASSCO, and it was NASSCO's responsibility to cover such contingency as it best saw fit in pricing its T-AKE contract proposal. One approach that NASSCO or its subcontractors could have pursued to address this risk was purchase of exchange rate hedge contracts. NASSCO and its subcontractors made the business decision not to do so. For these reasons, NASSCO has no entitlement to a cost adjustment to the T-AKE contract due to losses incurred from currency fluctuations.

In conclusion, the Navy will evaluate the potential risk due to foreign exchange fluctuation on future contracts. However, prime contractors are in a better position than the Government to assess the extent of the risk to its planned suppliers and to price any offer it submits to the Navy accordingly.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,



Delores M. Etter

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 16, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2008 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This requirement has been delegated to the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2008 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ships and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2008 annual report is enclosed.

As always, if I can be of further assistance, please let me know. A similar letter has been sent to Chairmen Levin, Inouye and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 16, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2008 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This requirement has been delegated to the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2008 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected depot maintenance requirements for ships and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2008 annual report is enclosed.

As always, if I can be of further assistance, please let me know. A similar letter has been sent to Chairmen Inouye, Skelton and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 16, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2008 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This requirement has been delegated to the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2008 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected depot maintenance requirements for ships and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2008 annual report is enclosed.

As always, if I can be of further assistance, please let me know. A similar letter has been sent to Chairmen Levin, Skelton and Inouye.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 16, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2008 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This requirement has been delegated to the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2008 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ships and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2008 annual report is enclosed.

As always, if I can be of further assistance, please let me know. A similar letter has been sent to Chairmen Levin, Skelton and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 National Defense Authorization Act Section 342, the enclosed report provides the requested information on the "Sea Swap" ship rotational experiment involving USS GONZALEZ (DDG 66), USS STOUT (DDG 55), and USS LABOON (DDG 58).

The report represents all data collection and analysis from February 2005 through January 2007. Navy will complete the data collection and analysis on this initiative as a component of evaluating the effectiveness of various multi-crewing alternatives.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I may be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 National Defense Authorization Act Section 342, the enclosed report provides the requested information on the "Sea Swap" ship rotational experiment involving USS GONZALEZ (DDG 66), USS STOUT (DDG 55), and USS LABOON (DDG 58).

The report represents all data collection and analysis from February 2005 through January 2007. Navy will complete the data collection and analysis on this initiative as a component of evaluating the effectiveness of various multi-crewing alternatives.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I may be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 National Defense Authorization Act Section 342, the enclosed report provides the requested information on the "Sea Swap" ship rotational experiment involving USS GONZALEZ (DDG 66), USS STOUT (DDG 55), and USS LABOON (DDG 58).

The report represents all data collection and analysis from February 2005 through January 2007. Navy will complete the data collection and analysis on this initiative as a component of evaluating the effectiveness of various multi-crewing alternatives.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I may be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 National Defense Authorization Act Section 342, the enclosed report provides the requested information on the "Sea Swap" ship rotational experiment involving USS GONZALEZ (DDG 66), USS STOUT (DDG 55), and USS LABOON (DDG 58).

The report represents all data collection and analysis from February 2005 through January 2007. Navy will complete the data collection and analysis on this initiative as a component of evaluating the effectiveness of various multi-crewing alternatives.

A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. If I may be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable C. W. Bill Young
Ranking Minority Member

Report on Navy Surface Ship Rotational Crew Programs in Compliance with Section 342 of Fiscal Year 2007 National Defense Authorization Act

15 FEBRUARY 2007

Table of Contents

Comparison of Ships Participating and Not Participating in the Experiment **1**
Brief Sea Swap Experiment Overview 1
1. A comparison between the three destroyers 2
1a. Cost-effectiveness 3
1b. Maintenance procedures, impacts, and deficiencies 4
1c. Mission training requirements 6
1d. Professional development requirements 6
1e. Liberty port of call opportunities 6
1f. Movement and transportation of crew 7
1g. Inventory and property accountability 8
1h. Policies and procedures for assigning crew billets 8
1i. Crew retention [reenlistment] statistics 8
1j. Readiness and mission capability data 9
Results from Surveys **9**
2. Results from surveys administered or focus groups 9
2a. Effects on quality of life 10
2b. Effects on training 10
2c. Effects on professional development 10
2d. Effects on maintenance 11
2e. Effects on mission effectiveness 11
2f. Effects on other issues 11
Standard Policies and Procedures Development **12**
3. The extent to which standard policies and procedures 12
Lessons Learned **12**
4. Lessons Learned from the experiment 12
Combatant Commander Assessment **13**
5. An assessment from the combatant commanders 13
Fleet Forces Command Assessment **13**
6. An assessment from the commander of the Fleet Forces Command 13
6a. Material condition 13
6b. Maintenance 14
6c. Crew training 14
Secretary of the Navy Recommendations **15**
7. Any recommendations of the Secretary of the Navy 15
Appendix A: FFC DDG Sea Swap Operations Model **A-1**
Appendix B: Operations Cost Model and Cost Comparison **B-1**
Appendix C: Maintenance Data and Cost Model **C-1**
Appendix D: Reenlistment Data **D-1**

List of Figures

Figure 1. FFC DDG Sea Swap Initiative Operational Concepts 2
Figure A1. FFC DDG SSI and Traditional Models A-1
Figure B1. Basic Operations Cost Model B-1
Figure D1. Zone A Reenlistment Trends D-1
Figure D2. Zone B Reenlistment Trends D-2
Figure D3. Zone C Reenlistment Trends D-3

List of Tables

Table 1 2
Table 2 7
Table B1 ..... B-2
Table C1 ..... C-1
Table C2 (Non-Deployers) C-1
Table C3 ..... C-1
Table C4 (Non-Deployers) C-1
Table C5 ..... C-2
Table C6 ..... C-3

List of Acronyms

AOR	Area of Responsibility
CASREP	Casualty Report
CM	Continuous Maintenance
CNP	Chief of Naval Personnel
CNSL	Commander Naval Surface Forces U.S. Atlantic Fleet
CONOPS	Concept of Operations
CSA	Critical Systems Assessment
CSG	Carrier Strike Group
CTF	Combined Task Force
DEOCS	Defense Equal Opportunity/Organizational Climate Survey
DSRA	Dry-dock Selective Restricted Availability
EMRM	Equipment Maintenance Related Material
EOC	Equipment Operating Condition
ESG	Expeditionary Strike Group
FFC	Fleet Forces Command
INSURV	Board of Inspection and Survey
JAGMAN	Manual of the Judge Advocate General
LANTFLT	Atlantic Fleet
MCM	Mine Countermeasure
MCO	Major Combat Operations
MFOM	Maintenance Figure of Merit
MOP	Measure of Performance
MSO	Maritime Security Operations
NALO	Naval Air Logistics Office
NDAA	National Defense Authorization Act

NEO	Noncombatant Evacuation Operation
NiCu	Nickel Copper
NLLS	Navy Lessons Learned System
NPRST	Navy Personnel Research, Studies, & Technology
OPCON	Operational Control
OPNAV	Office of the Chief of Naval Operations
OPTAR	Operating Target
PACFLT	Pacific Fleet
PC	Patrol Coastal
POAM	Plan of Actions and Milestones
QoL	Quality of Life
QP	Quick Poll
RMC	Regional Maintenance Center
RSO	Regional Support Organization
SORTS	Status of Resources and Training System
SSI	Sea Swap Initiative
UIC	Unit Identification Code

SEC. 342. REPORT ON NAVY SURFACE SHIP ROTATIONAL CREW PROGRAMS.

(a) REPORT REQUIRED.—Not later than April 1, 2007, the Secretary of the Navy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the ship rotational crew experiment referred to in subsection (c)(1). The report shall include the following:

(1) A comparison between the three destroyers participating in that experiment and destroyers not participating in the experiment that takes into consideration each of the following:

A) Cost-effectiveness, including a comparison of travel and per diem expenses, maintenance costs, and other costs.

(B) Maintenance procedures, impacts, and deficiencies, including the number and characterization of maintenance deficiencies, the extent of voyage repairs, post-deployment assessments of the material condition of the ships, and the extent to which work levels were maintained.

(C) Mission training requirements.

(D) Professional development requirements and opportunities.

(E) Liberty port of call opportunities.

(F) Movement and transportation of crew.

(G) Inventory and property accountability.

(H) Policies and procedures for assigning billets for rotating crews.

(I) Crew retention statistics.

(J) Readiness and mission capability data.

(2) Results from surveys administered or focus groups held to obtain representative views from commanding officers, officers, and enlisted members on the effects of rotational crew experiments on quality of life, training, professional development, maintenance, mission effectiveness, and other issues.

(3) The extent to which standard policies and procedures were developed and used for participating ships.

(4) Lessons learned from the experiment.

(5) An assessment from the combatant commanders on the crew mission performance when deployed.

(6) An assessment from the commander of the Fleet Forces Command on the material condition, maintenance, and crew training of each participating ship.

(7) Any recommendations of the Secretary of the Navy with respect to the extension of the ship rotational crew experiment or the implementation of the experiment for other surface vessels.

(b) POSTPONEMENT OF IMPLEMENTATION.—The Secretary of the Navy may not begin implementation of any new surface ship rotational crew experiment or program during the period beginning on the date of the enactment of this Act and ending on October 1, 2009.

(c) TREATMENT OF EXISTING EXPERIMENTS.—

(1) DESTROYER EXPERIMENT.—Not later than January 1, 2007, the Secretary of the Navy shall terminate the existing ship rotational crew experiment involving the U.S.S. Gonzalez (DDG–66), the U.S.S. Stout (DDG–55), and the U.S.S. Laboon (DDG–58) that is known as the "sea swap".

(2) PATROL COASTAL CLASS SHIP EXPERIMENT.—The Secretary of the Navy may continue the existing ship rotational crew program that is currently in use by overseas-based Patrol Coastal class ships.

(3) MINE COUNTERMEASURES SHIPS.—The Secretary of the Navy may continue the existing ship rotational crew program that is currently in use by MCM and MHC ships.

(4) LITTORAL COMBAT SHIPS.—The Secretary of the Navy may employ a two crew for one ship (commonly referred to as Blue-Gold) rotational crew program for the first two ships of each Littoral combat ship design (LCS 1–4).

(d) COMPTROLLER GENERAL REPORT.—Not later than July 15, 2007, the Comptroller General shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the ship rotational crew experiment referred to in subsection (c)(1). The report shall include the following:

(1) A review of the report submitted by the Secretary of the Navy under subsection (a) and an assessment of the extent to which the Secretary fully addressed costs, quality of life, training, maintenance, and mission effectiveness, and other relevant issues in that report.

(2) An assessment of the extent to which the Secretary established and applied a comprehensive framework for assessing the use of ship rotational crew experiments, including formal objectives, metrics, and methodology for assessing the cost-effectiveness of such experiments.

(3) An assessment of the extent to which the Secretary established effective guidance for the use of ship rotational crew experiments.

(4) Lessons learned from recent ship rotational crew experiments and an assessment of the extent to which the Navy systematically collects and shares lessons learned.

(e) CONGRESSIONAL BUDGET OFFICE REPORT.—Not later than July 15, 2007, the Director of the Congressional Budget Office shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the long-term implications of the use of crew rotation on Navy ships on the degree of forward presence provided by Navy ships. The report shall include the following: Deadline.

(1) An analysis of different approaches to crew rotation and the degree of forward presence each approach would provide.

(2) A comparison of the degree of forward presence provided by the fleet under the long-term shipbuilding plan of the Navy with and without the widespread use of crew rotation.

(3) The long-term benefits and costs of using crew rotation on Navy ships.

Report on Navy Surface Ship Rotational Crew Programs in Compliance with Section 342 of Fiscal Year 2007 National Defense Authorization Act

This report provides the Navy's responses to questions about Navy Surface Ship Rotational Crew Programs as directed in section 342 of the Fiscal Year 2007 National Defense Authorization Act (NDAA). The report sections are listed below as written in the NDAA language, followed by a summary of the results for each topic.

Comparison of Ships Participating and Not Participating in the Experiment

Brief Sea Swap Experiment Overview

The Fleet Forces Command (FFC) DDG Sea Swap Initiative (SSI)[1] concept involved six Atlantic Fleet (LANTFLT) ships[2]: three Experiment Group DDGs, and three similar Control Group DDGs which did not swap crews during the experiment period. USS Gonzalez (DDG 66) deployed to the 5th Fleet Area of Responsibility (AOR) for approximately 18 months (March 2005 – August 2006), and the three Experiment Group DDG crews manned the ship in 6-month increments.

Deployed crew turnovers took place in the 5th Fleet AOR at Jebel Ali, Dubai and Manama, Bahrain. While deployed, Gonzalez supported five Expeditionary Strike Groups (ESGs) as well as performing Maritime Security Operations (MSO) in the 5th Fleet AOR. Gonzalez supported Dutch-led Combined Task Force (CTF) 51, American-led CTF 152, and British-led CTF 58 performing MSO as part of the Global War on Terrorism. All three crews engaged pirates or supported anti-pirate operations off the coast of Somalia. Gonzalez, with final rotating crew onboard, also conducted Non-combatant Evacuation Operations (NEO) under 5th Fleet Operational Control (OPCON) during the Beirut, Lebanon evacuation.

This report addresses each of the topics found in Section 342 of the FY 2007 NDAA. Additional data will be available in the 2nd Quarter of FY 2007 in the maintenance, reenlistment, and survey areas. Analysis results will be updated in the Sea Swap Initiative Final Report, available June 2007.

---

[1] Although this effort was originally called the DDG Sea Swap Experiment, the name was changed to the DDG Sea Swap Initiative in March 2005.

[2] Table 1 identifies the ships in the Experiment Group, Control Group, and the Comparison Group (established to provide additional deployed data)

1. "A comparison between the three destroyers participating in that experiment and destroyers not participating in the experiment that takes into consideration each of the following:"

Analysis Approach: Rigorous data collection and analysis were based on comparing data and Measures of Performance (MOPs) between the Sea Swap Experiment Group and Control Group ships and crews (listed in Table 1). A Comparison Group of other DDGs (also listed in Table 1) recently deployed to the 5th Fleet AOR was identified when additional comparison data were needed for some analysis issues. Operations and cost models were developed to assess the primary MOPs: 5th Fleet presence days and operational costs.

Table 1

Experiment Group	USS Gonzalez (DDG 66), USS Laboon (DDG 58), USS Stout (DDG 55)
Control Group	USS Cole (DDG 67), USS Ross (DDG 71), USS The Sullivans (DDG 68)
Comparison Group	USS Oscar Austin (DDG 79), USS Barry (DDG 52), USS Bulkeley (DDG 84), USS Winston S. Churchill (DDG 81), USS Donald Cook (DDG 75), USS Mason (DDG 87), USS McFaul (DDG 74), USS Roosevelt (DDG 80)

Recent real-world 5th Fleet presence has been provided by alternating LANTFLT and Pacific Fleet (PACFLT) ESG and Carrier Strike Group (CSG) deployments (Figure 1). "Traditional" deployment operations and cost models were therefore developed to exhibit how 5th Fleet DDG presence would have been provided had the FFC DDG SSI not taken place. Both SSI and Traditional operations models are discussed in greater detail in Appendix A.

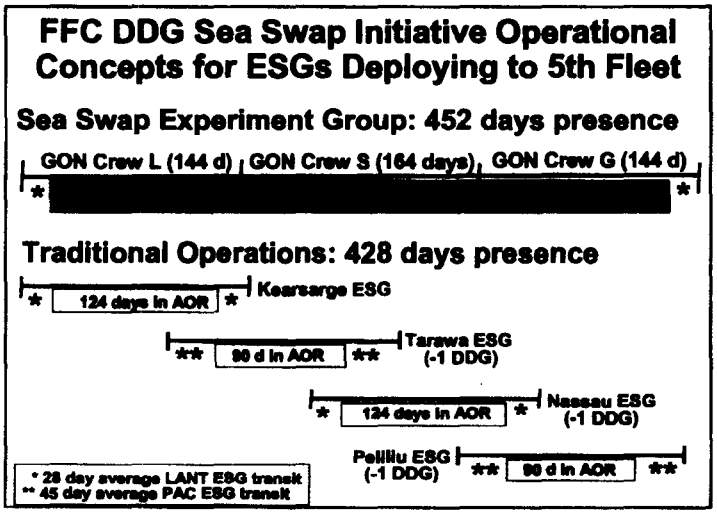


Figure 1. FFC DDG Sea Swap Initiative Operational Concepts (Average Numbers of Days Assuming 180-day Deployments)

1a. "Cost-effectiveness, including a comparison of travel and per diem expenses, maintenance costs, and other costs."

Response: The 3-ship/3-crew FFC DDG SSI analysis summarized here provided the same number of 5th Fleet AOR presence days as 4.2 DDGs using Traditional crewing, at an operational cost savings of $9.8M. Projected future operational cost savings are estimated to be $10.6M (using average deployment lengths and current prices for fuel, crew transportation and turnovers, details in Appendix B). Operational cost savings are due primarily to fuel savings of approximately 140,000 barrels. Comparison of maintenance cost data available to date indicates that maintenance spending on Gonzalez and the non-deploying Experiment Group ships is similar to that for other LANTFLT DDGs.

Operations Cost Analysis: 5th Fleet presence days and operational costs were calculated using operations and cost models (discussed in greater detail in Appendix B). Operational cost and performance trade-off analysis results are summarized below:

- The 3-ship/3-crew Experiment Group provided an actual total of 456 5th Fleet presence days, while the average Sea Swap model (assuming all crews deployed for 180 days) would provide a total of 452 5th Fleet presence days. This is equivalent to 4.2 DDGs using the Traditional operations model.
- Two PACFLT and one LANTFLT ESG deployed with one less DDG (because Gonzalez was already in 5th Fleet), providing PACFLT with the operational flexibility of two DDGs for 6 months each for alternate tasking.
- The Experiment Group saved approximately $9.8M in operations costs compared to the Traditional operations model. This result is largely due to fuel cost savings because Sea Swap required a single LANTFLT round-trip transit, while the Traditional model would require 2.5 LANTFLT and 2.0 PACFLT round-trip transits.

Shipboard Funding/Cost Analysis: Shipboard operating costs (referred to as OPTAR costs) reflect expenditures to support normal operations and maintenance of the crew and hull. OPTAR costs are maintained in two accounts: Other OPTAR (i.e. medical, damage control, personnel safety and general consumables, etc.) and Equipment Maintenance Related Material (EMRM) to support maintenance actions on shipboard equipment.

- Other OPTAR spending (non-maintenance related) was similar for Experiment and Comparison Group crews.
- EMRM spending for Gonzalez was typical of the EMRM spending of the deploying Comparison Group ships except for a 6-month window centered on a spike in January 2006 related to a cluster of SPY-1 RADAR Casualty Reports (CASREPS). A review of CASREPS and EMRM spending for the entire DDG 51 class revealed that one in five ships had experienced a cluster of SPY-1 CASREPS that created a similar spike in EMRM spending, leading to the conclusion that the spike in Gonzalez EMRM spending is not Sea Swap related.

Maintenance Cost Analysis: A Maintenance Cost Model was also developed for this analysis (Appendix C). The Final Report will use this Maintenance Cost Model and the data available from Gonzalez's dry-dock selective restrictive availability (DSRA) as of 15

April 07. Although the final DSRA data will be incomplete until Gonzalez concludes the dry-docking availability in June 2007, it is felt that the DSRA contract award value, CSMP back-log and documented growth work (as of 15 April 07) will provide realistic data to support the Final Report in June 07. Final availability cost data is normally not available until 45 days after completion of the yard period. The current budget for the FY07 Gonzalez availability (approx $9M) is typical for DDG dry-docking availabilities. It currently appears that total maintenance costs will be similar for Experiment and Control Group ships. However, it should be noted Gonzalez has not completed a DSRA or SRA since her Post Shakedown Availability; a period of almost ten years. Results for deployer and non-deployer maintenance cost analysis are summarized below:

- Gonzalez's maintenance costs over the SSI time period were typical of the Control Group ship Ross (during her June – November 2006 deployment) and other Comparison Group deployers.
- Average monthly voyage repair costs for Gonzalez were higher than those for both Ross and the Comparison Group ships. A majority of the voyage repair spending on Gonzalez occurred in the last twelve months of the deployment. Title 10, U.S. Code defines Voyage Repairs as emergency work necessary to enable a ship to continue its mission and that can be accomplished without a change to the ship's deployment schedule.
- EMRM spending on non-deployers Laboon and Stout was less than that for the Control Group ship The Sullivans, and similar to the All-DDG average.
- For the three non-deploying ships, Laboon, Stout and The Sullivans, the Regional Maintenance Center (RMC) expended less labor dollars on Laboon and more on Stout compared to The Sullivans. However, the dry-docking availability Stout completed during the analysis period accounts for the additional spending.

1b. "Maintenance procedures, impacts, and deficiencies, including the number and characterization of maintenance deficiencies, the extent of voyage repairs, post-deployment assessments of the material condition of the ships, and the extent to which work levels were maintained."

Response: Material condition had no overall impact on Experiment Group ships' operational capability when compared to Control Group ships. However, corrosion control issues were identified prior to Gonzalez departure, and the issues worsened over the course of Gonzalez extended deployment. Maintenance procedures did not vary between Experiment and Control Group ships. In particular, Gonzalez was subject to the same maintenance procedures as other DDGs deployed to 5th Fleet. Post-deployment assessments are not yet complete for Control Group ship Cole, which returned from 5th Fleet deployment in December 2006, consequently the results of Cole's post-deployment data analysis will be included in the Final Report.

Deploying Ship Comparisons: Gonzalez's material condition during her 18-month deployment was not negatively impacted by Sea Swap when compared to six-month deployments for a Comparison Group of DDGs for six material condition measures:

- Gonzalez reported a higher percentage of days C-1 or C-2[3] for equipment in the Status of Resources and Training System (SORTS): 93% vs. an average of 84% for the Comparison Group.
- Gonzalez reported fewer mission degrading casualties, being free of C-3 or C-4[4] CASREPS for more of the time: 82% vs. an average of 76% for the Comparison Group.
- Gonzalez averaged fewer significant work orders (2-Kilos)[5] each month: 5.8/month vs. 9.8/month for the Comparison Group.
- Gonzalez's monthly average Maintenance Figure Of Merit (MFOM) was lower (better): 21.06 vs. an average of 29.71 for the Comparison Group.
- Critical Systems Assessment (CSA)[6] results indicate no difference in material condition between Gonzalez and the Control Group ship Ross: the trends in number of deficiencies for each system and average score for each deficiency were similar (Table C1 in Appendix C provides more detailed information). CSA data from the Control Group ship Cole are not yet available and will be included in the Final Report.
- Gonzalez initiated an average of 202 new 2-Kilos per month, while the Comparison Group initiated an average of 275. Gonzalez monthly totals did trend upward through the first 15 months of the deployment, and trended downward during the final three months.
- Gonzalez averaged 69 C-2 CASREPS for each 6 month period, while Comparison Group ships averaged 49 during a standard 6 month deployment.
- Ten voyage repair jobs were conducted on Gonzalez over the course of her 18-month deployment, at a total cost of $247,439. While part of Gonzalez's costs may be attributed to the extended deployment, conclusions cannot be drawn between Sea Swap and voyage repair costs without further analysis of extended deployment maintenance plans and the final maintenance data from Gonzalez' post-deployment availability.

Non-Deploying Ship Comparisons: No pattern of overall differences was found between the material condition of the non-deploying Experiment Group ships Laboon and Stout and that of the Control Ship The Sullivans. The work levels for non-deploying Experiment Group ships (Laboon and Stout) were lower than those for the non-deploying Control Group ship (The Sullivans). Details are provided in Appendix C.

---

[3] A C-1 rating means no or very minor degradation to the piece of equipment or system, C-2 rating indicates only minor degradation, equipment or system is still operational

[4] A C-3 rating means major degradation, but problem is solvable with parts or technical assistance, a C-4 rating indicates major degradation requiring depot level or in port repairs.

[5] A significant 2-Kilo has the following characteristics: work is deemed essential or mandatory, and affected equipment is non-operational or operational in a reduced capacity

[6] A CSA was conducted by the Board of Inspection and Survey (INSURV) on each of the six ships within 6 months of Gonzalez' deployment date, and again within 6 months of the return to homeport date. In addition, a CSA was conducted on Gonzalez just prior to both turnover dates. During each CSA the same 24 Systems were evaluated.

1c. "Mission training requirements."

Response: Sea Swap impacted the Integrated and Sustainment Phases of training prior to each crew's deployment, but did not impact overall Unit Level Phase training or post-deployment Sustainment Phase training. Regardless, the operational performance of the crews indicates the training was successful.

Comparison of the SSI Experiment Group crews' pre-deployment training to the ESG baseline training completed by Cole (as part of the Iwo Jima ESG) showed the following:

- Unit Level Phase training for the three Experiment Group crews was not noticeably different from that for the Control Group ship Cole.
- The first Experiment Group crew completed typical ESG Integrated and Sustainment Phase training and certifications as a part of the Kearsarge ESG.
- The second and third Experiment Group crews completed atypical ESG Integrated and Sustainment Phase training, and did not receive the typical certifications (Major Combat Operations (MCO) Surge Ready and MCO Ready) before deploying to the 5th Fleet AOR.

The differences in the second and third Experiment Group crews' Integrated and Sustainment Phase training (and lack of related certifications) occurred because these crews were not assigned to a specific CSG or ESG during pre-deployment training. Both crews did participate in a mix of CSG and ESG training as available.

1d. "Professional development requirements and opportunities."

Response: Sea Swap did not impact enlisted or officer individual qualifications or the enlisted advancement exam results.

Statistical testing showed no significant difference between Experiment and Control Group crews in the number of individual qualifications completed monthly for Enlisted Surface Warfare Specialist, Surface Warfare Officer, Officer of the Deck Underway, Officer of the Deck Inport, Engineering Officer of the Watch, Tactical Action Officer, and Combat Systems Officer of the Watch for the time period March 2005 through September 2006.

Statistical testing of the number of enlisted personnel that passed or failed the enlisted advancement exam for each rank indicated no significant difference between Experiment and Control Group crew results.

1e. "Liberty port of call opportunities."

Response: The two-day difference in total deployment port visit days between the Experiment and Comparison Group crews was not significant given the wide variability in port visit opportunities in the 5th Fleet AOR. Note that Experiment Group crews were given a five-day training/liberty port visit in Rota, Spain enroute the 5th Fleet AOR in lieu of the one or two Mediterranean Sea port visits typically scheduled for transiting ships. The average number of days in port for both Groups is shown in Table 2.

Table 2

Experiment Group	10.7	19.3	30.0
Typical LANTFLT DDG	14.6	17.5	32.1

In addition, a "Quick Poll" was designed to gather data for comparing Experiment and Control Group crew morale at several points during the SSI. One question asked about the effect "Amount of time off (e.g., leave, liberty, other)" had on morale. The first three Quick Polls (QPs) showed no significant differences between Experiment and Control Group crew responses. However, the Experiment Group reported that the amount of time off had a significantly more positive effect on morale in the fourth QP, given after Gonzalez returned from deployment.

1f. "Movement and transportation of crew."

Response: Gonzalez was manned by crews from the three Experiment Group ships during her 18-month deployment to the 5th Fleet. Each rotating crew sent an Advance Party of approximately 20 personnel to initiate turnover procedures. The Control Group ships did not rotate crews and were not required to transport personnel between hulls.

Movement and transportation of the Experiment Group crews was coordinated by a designated representative from the Commander, Naval Surface Force U.S. Atlantic Fleet staff (CNSL N41). Costs associated with moving and transporting crews are reflected in the cost models shown in Appendix B. Logistics arrangements included:

- Navy Air Logistics Office (NALO) aircraft were used for the first turnover in Jebel Ali, Dubai in September 2005. Three aircraft were required to transport all personnel and cargo due to aircraft size and availability, resulting in some transportation delays.
- A single wide-body MD-11 commercial aircraft was contracted through U.S. Transportation Command for the second turnover in Manama, Bahrain in February 2006. This approach was more efficient than using multiple Navy aircraft since it allowed the entire crew to travel together and reduced scheduling conflicts.
- Crews were berthed in the Bachelor Officer/Enlisted Quarters in Rota, Spain during training/liberty port visits. Crews stayed in hotels during the turnover period in each turnover city. Bus transportation was provided for movement of personnel between the hotels and Gonzalez. Crews were fed on the pier in a contracted dining facility during the turnover to allow them to secure and clean the galley and complete transferring food service accountability.
- Regional Support Organization (RSO) Norfolk assumed a caretaker role for each non-deploying Sea Swap ship in Norfolk, VA during crew swaps in 5th Fleet. RSO developed detailed check-off lists for both assuming command of the hull and then turning it over to the returning crew. RSO staff personnel, returning Advance Party crew members, and personnel from other ships, manned the hull and provided security during the caretaker period. RSO also coordinated the welcome home events to greet each returning crew.

1g. "Inventory and property accountability."

Response: Transfer of accountability during crew rotations followed normal procedures established for the type of material/operation and the degree of oversight required for each type of material or operation.

Primary guidance is provided by Commander Naval Surface Force Instruction 5440.1 which provides detailed instructions for maintaining accountability during exchanges of command. This instruction recognizes the unique aspects of Sea Swap and Multi-Crewing and incorporates specific requirements to ensure accountability is maintained.

RSO Norfolk established detailed check-off lists for assuming caretaker responsibility of the non-deploying Sea Swap ship to ensure accountability was maintained during the caretaker period. Standard procedures were followed between crews during deployed turnovers.

Two investigations pertaining to inventory and property accountability during the FFC DDG SSI were completed by RSO Norfolk in accordance with Chapter II of the Manual of the Judge Advocate General (JAGMAN) and forwarded to CNSL. Both investigations revealed that the loss of accountability or inventory was due to personnel errors rather than the Sea Swap Initiative.

1h. "Policies and procedures for assigning billets for rotating crews."

Response: Assignment of personnel to the rotating crews of the three Experiment Group ships followed normal procedures and manning criteria. Chief of Navy Personnel (CNP) did not change assignment procedures for Experiment Group crews. A unique Unit Identification Code (UIC) was established for each Experiment Group crew to assist in personnel transfers and billet assignments as well as to track and measure crew-specific data (i.e. reenlistment, training, advancement, etc.) as the crews rotated between hulls. These unique UICs were disestablished December 1, 2006.

1i. "Crew retention [reenlistment] statistics."

Response: Reenlistment data were used for this analysis because the Navy started reporting reenlistment rather than retention rates starting in October 2001. Experiment Group reenlistment trends were mixed compared to the Control Group and a Comparison Group of All LANTFLT DDGs. Analysis results are summarized below:

- Zone A (0-6 years service): Both Control and Experiment Groups had decreasing reenlistment trends compared to an increasing reenlistment trend for LANTFLT DDGs.
- Zone B (6-10 years service): All Groups had a decreasing reenlistment trend.
- Zone C (10-14 years service): The Control Group had an increasing reenlistment trend while the Experimental and LANTFLT DDG groups had a decreasing reenlistment trends (see Appendix D for more detail).

The Experiment Group exhibited a decreasing reenlistment trend in all three Zones during the period of the FFC DDG SSI. A mitigating factor that may have impacted these

results is that the number of crew members at End of Active Obligated Service (EAOS) in Zones B and C for any given 12 month period is small (3-8). It will be difficult to determine if the observed differences between Experiment and Control Groups are attributable to Sea Swap until longer-term data are available.

The four Quick Polls included three questions related to retention intentions, all drawn from the 2005 Navy-wide Personnel Survey. No statistically significant difference in retention intentions was found between Experiment and Control Group crews for any of the four Quick Polls administered during the DDG SSI.

1j. "Readiness and mission capability data."

Response: Gonzalez's overall readiness was significantly higher than that of a Comparison Group of DDGs deploying to the 5th Fleet AOR. Mission tasking and capability were similar for Gonzalez and Comparison Group ships.

Readiness and mission capability data were drawn from operations summaries, 5th Fleet AOR mission tasking, SORTS, and Operational Commander Survey questions. Analysis results indicate:

- Gonzalez's readiness during deployment as measured by overall C-ratings was significantly higher than that of seven Comparison Group DDGs (both ESG and CSG DDGs were included in this analysis).
- Gonzalez's overall tasking in the 5th Fleet AOR was similar to that of Comparison Group ships.
- Gonzalez crews were rated average or above in all areas compared to typical DDGs by Operational Commanders.

Results from Surveys

2. "Results from surveys administered or focus groups held to obtain representative views from commanding officers, officers, and enlisted members on the effects of rotational crew experiments on quality of life, training, professional development, maintenance, mission effectiveness, and other issues."

Analysis Approach: Surveys and group discussions were used to collect data in three major areas: Morale and Quality of Life (QoL), Operational Effectiveness, and Lessons Learned/crew rotation issues.

Two well-established Navy survey instruments were used to assess Morale and QoL: A Quick Poll (QP) comprised of questions derived from the Chief of Naval Personnel (CNP) and Navy Personnel Research, Studies and Technology (NPRST) Navy-wide Personnel Survey, and three sections of the Defense Equal Opportunity Management Institute Organizational Climate Survey (DEOCS). These surveys were administered to

all six Experiment and Control Group crews four times, and a fifth post-deployment QP was given to the two Control Group ships (Ross and Cole) in January 2007. The Organizational Climate Survey was given to all six ships in September 2005 and again in October 2006.

Operational Commander Surveys were administered for each deploying crew to staffs in Gonzalez's 5th Fleet operational chain of command. Operational Commanders were asked to compare mission capability and operational effectiveness of Experiment Group crews embarked in Gonzalez with other "typical" deployed DDGs.

Group discussion sessions were held at several levels of command for each Experiment Group crew soon after returning from deployment. These discussions were focused on deriving operational Sea Swap Lessons Learned, but additional questions addressed other crew-rotation areas. Each crew was also given an opportunity to raise their own issues. Similar discussions were held with CNSL and RSO Norfolk staff.

2a. "... effects ... [on] quality of life"

Response: No consistent pattern of statistically significant differences was found between Experiment and Control Group crews for Quick Poll questions in the areas of Navy Workplace Morale, Leadership, Navy Image and Tone, Job Satisfaction, or Workload for any of the four QPs. Organizational Climate Survey analysis showed similar results: no significant differences between Experiment and Control Group crews in Commitment to the Organization, Perceived Work Group Effectiveness or Job Satisfaction.

Some differences were found in the areas of Shipboard Life and Command Leadership, but they were not consistent among crews in each Group, nor were any trends identified across time for either Experiment or Control Group crews.

2b. "... effects ... [on] training"

Response: During group meetings to develop Lessons Learned, several crew members reported the need for additional training for enlisted operators or technicians created by equipment configuration differences between Experiment Group ships. The impact of these differences was reported to be minor, and in each case the crew sought out and completed formal or informal training to resolve the deficiency prior to deployment. Crews did not report any issues concerning Unit Level, Integrated, or Sustainment Phase training.

2c. "... effects ... [on] professional development"

Response: During group meetings to develop Lessons Learned, members of each crew reported that Sea Swap turnover preparations created additional workload that limited a crewmember's time to pursue individual qualifications for professional development. However, statistical analysis of the number of qualifications completed by the Experiment and Control Groups showed no significant difference. In addition, results of a QP question about the average number of hours worked each week did not support the crew member's perception of increased workload.

2d. "... effects ... [on] maintenance"

Response: None of the crews reported a significant Sea Swap impact on any system when asked about material condition. Dissatisfaction was expressed with the availability of some spare parts and supplies during the 18-month deployment.

During Lessons Learned group meetings, crews consistently reported dissatisfaction with the availability of some spare parts and supplies. Comparison of QP responses between Experiment and Control Group crews showed no significant difference on any of the three questions about spare parts and supplies at the beginning of the SSI. However, Experiment Group crews were significantly less satisfied than the Control Group in the second, third and fourth QPs (at about 7-months, 12-months, and after Gonzalez' deployment). Satisfaction with the availability of spare parts and supplies trended downward for Experiment Group crews as the SSI progressed, while Control Group satisfaction did not change over time. Note that none of the Control Group ships was deployed for any of the first four polls. Two Control ships, Cole and Ross, were surveyed again in January 2007, following their 6-month deployment to 5th FLT. Analysis of this data was not available for incorporation in this response, but will be included in the Final Report.

It was noted that factors other than Sea Swap could have caused these differences – for example, the lack of normal logistics hubs to support Gonzalez during operations off the Horn of Africa, or the unavailability of some resupply items in Bahrain (ships can carry only a 6-month supply of items such as Freon, special lube oils and NiCu piping).

2e. "... effects ... [on] mission effectiveness"

Response: Results of the Operational Commander Survey indicated that Gonzalez's mission effectiveness was the same as other "typical" DDGs deployed to 5th Fleet. More detail is provided in the response to Section 5 of this Report.

Group interviews of each Experiment Group crew indicated they felt they were effective even without the usual time to prepare during the transit to the 5th Fleet AOR .

2f. "... effects ... [on] other issues."

Response: During group meetings to develop Lessons Learned, Commanding Officers, crew members and the RSO Norfolk staff indicated that Sea Swap was not "business as usual." All suggested that additional management and oversight is needed to implement and execute Sea Swap effectively and to minimize the impact of crew rotation on Sailors. Crews also agreed that ship "Ownership" was not a Sea Swap issue. Analysis of QP results showed no significant difference between Experiment and Control Group responses in any QoL or Morale-related area.

- "Ownership:" Experiment Group crews were aware that ship Ownership issues often were associated with Sea Swap, and each discussion group initiated a discussion of Ownership issues. All agreed that problems often attributed to Ownership should instead have been attributed to problems in Leadership. They emphasized that in effect, Leadership trumped Ownership.

- Workload: Results for the first QP (near the beginning of the SSI) showed that the Experiment Group worked significantly fewer hours, while the other three QPs (at approximately the 7-month, 12-month, and 18-month points) showed no significant differences in hours worked between Experiment and Control Group crews.
- Experiment and Control Group responses compared for 11 questions related to Job Satisfaction and Navy Image and Tone showed no significant differences between groups on any question for any of the four QPs.

Standard Policies and Procedures Development

3. "The extent to which standard policies and procedures were developed and used for participating ships."

Response: Standard policies were developed at various levels to support the SSI.

Commander Naval Surface Forces Instruction 5440.1 was revised after the West Coast DD/DDG Sea Swap Proof of Concept in order to incorporate Lessons Learned and promulgate procedures required for multi-crewing Change of Commands. RSO Norfolk expanded these checklists and issued the expanded checklists to Sea Swap crews as an RSO Norfolk Notice. In addition, RSO Norfolk developed policies and procedures to guide staff and ship's force assigned to caretaker duties on Laboon and Stout during crew turnovers.

CNSL developed a Concept of Operations (CONOPS) to guide the staff and other organizations that supported the FFC DDG Sea Swap Initiative.

The Sea Swap crews developed and shared detailed Plan of Actions and Milestones (POAMs) and turnover notebooks to support crew turnover preparation and execution.

Lessons Learned

4. "Lessons Learned from the experiment."

Response: Fifty comprehensive Lessons Learned were developed using input from the ships, supporting staffs, and the SSI Analysis Team[7]. CNSL submitted 26 of the Lessons Learned that would be useful to future crew rotation efforts to the Navy Lessons Learned System (NLLS).

A key tenet of the data collection and analysis effort was to develop a structured process to capture, disseminate, and archive Lessons Learned. Inputs were captured from individual interviews, group meetings, trip reports, and record message traffic each DDG crew provided to RSO. All message traffic was also provided to each crew and incorporated into a cycle of learning to provide immediate feedback to all crews.

[7] CNSL hired a contractor to support the SSI data collection, analysis, and Lessons Learned effort.

Lessons Learned were derived and written for three audiences: 1) The next FFC DDG SSI crew preparing for deployment; 2) CNSL, RSO and other staffs revising and developing future CONOPS and policies; and 3) Future users of the NLLS. The results of this process are summarized below:

- Reviewed 111 inputs
- Combined, expanded, and coordinated staff review of inputs to develop 50 comprehensive Lessons Learned
- Submitted 26 formal Lessons Learned to NLLS.

Combatant Commander Assessment

5. "An assessment from the combatant commanders on the crew mission performance when deployed."

Response: Operational Commanders reported that Gonzalez's operational performance was similar to other "typical" DDGs deploying to 5th Fleet. Input from ten Operational Commanders that observed Gonzalez's performance showed that Experiment Group crews were:

- "Average" or above for mission areas observed
- "Better than Average" or above in Strike Group Integration and Good Will/Naval Engagement
- "Better than Average" or above in Surface Warfare.

Operational Commander Surveys were administered after each Gonzalez crew returned from deployment. Surveys covered 14 mission areas, Strike Group Integration performance, and performance as goodwill ambassadors. Commanders rated Gonzalez in each area and were given the opportunity to add comments to amplify each rating.

Fleet Forces Command Assessment

6. "An assessment from the commander of the Fleet Forces Command on the material condition, maintenance, and crew training of each participating ship."

6a. "... material condition"

Response: Using the Gonzalez post deployment Critical System Assessment (CSA) in October 2006 as a reference point, the material condition of the Experiment and the Control Group ships were similar. However, the full assessment of Gonzalez material condition will include review and assessment of her post deployment maintenance availability scheduled to begin March 2007. These results will be included in the final report.

6b. "... maintenance"

Response: We are awaiting the final assessment and report in June 2007, but would expect the scope of Gonzalez post deployment availability to be greater due to the duration between CNO availabilities.[8]

6c. "... crew training"

Response: Operational Commander Surveys indicated that Sea Swap crews performed as well or better than other DDG crews deployed to 5th Fleet. However, to execute enduring training for Sea Swap we learned that there is an extensive training tail involving shore infrastructure, training facilities, and platform configuration differences that have unanticipated cost associated in dollars and readiness.

Way ahead: No additional Sea Swap Initiatives are currently planned. The FFC DDG Sea Swap Initiative has provided valuable insights into this 3-ship/3-crew multi-crewing alternative. The numerous lessons learned captured during the SSI will be incorporated into future multi-crewing concepts, and will specifically benefit the Littoral Combat Ship (LCS) as it is introduced into the fleet and we use multi-crewing in LCS to derive maximum operational availability, forward presence, and warfighting capability for the investment.

[8] Gonzalez last CNO availability occurred at her Post Shakedown Availability (PSA) in October 1997. De-scoped Restricted Availabilities (RAV) executed in 1999, 2001, 2003, and 2005.

Secretary of the Navy Recommendations

7. "Any recommendations of the Secretary of the Navy with respect to the extension of the ship rotational crew experiment or the implementation of the experiment for other surface vessels."

Response: The Navy will complete the data collection and analysis on the FFC DDG Sea Swap Initiative as a component of evaluating the effectiveness of various multi-crewing alternatives. Analysis of multi-crewing alternatives is done with the expectation of fully understanding the implications of these crewing options before adopting any as a permanent component of the ship manning plan. Multi-crewing is not new to the Navy. In addition to the West Coast DD/DDG Sea Swap Proof of Concept and the recently completed FFC DDG Sea Swap Initiative, multi-crewing has been employed on Submarines, High Speed Vessels (HSV), Mine Counter-Measure (MCM) ships and Patrol Coastal (PC) ships for a number of years. Navy's new Littoral Combat Ship (LCS) will incorporate a Blue/Gold (similar to subs and HSV) multi-crewing manning concept. No additional Sea Swap Initiatives are currently planned. However, the Sea Swap multi-crewing concept is executable and works extremely well for ships with high demand but low numbers and most especially in the case of "sun-setting" a particular class of ships.

As the impact of new technology, ship design and changing missions confront the Department, along with existing capability gaps and the need to close those gaps, Navy will continue to develop transformational ways of manning, training and operating its forces in order to meet Combatant Commander operational mission requirements.

Appendix A

FFC DDG Sea Swap Operations Model

The Traditional model for deploying ESGs to 5th Fleet is shown at the top of Figure A1. LANTFLT and PACFLT typically alternate ESG deployments to 5th Fleet, providing continuous presence. The average transit duration for LANTFLT ESGs is 28 days, including embarking and disembarking Marines and one or two transit port calls in the Mediterranean Sea. The average transit for PACFLT ESGs is 45 days, also including embarking/disembarking Marines and two enroute port calls. Assuming deployment lengths of 180 days, LANTFLT ESGs provide an average of 124 days of 5th Fleet presence, while PACFLT ESGs provide an average of 90 days of 5th Fleet presence. The four-ESG rotation shown in Figure A1 provides an average total of 428 days presence, requiring 4.2 ships/crews.

The FFC DDG Sea Swap Initiative concept is shown in the lower part of Figure A1. Gonzalez with the three Experiment Group crews provided a real-world total of 456 5th Fleet presence days. Crew Lima was deployed for a total of 184 days, Crew Sierra for 171 days, and Crew Golf for 188 days. Typical Sea Swap deployment lengths of 180 days would provide an average total of 452 days of 5th Fleet presence.

Comparing total 5th Fleet presence days for the two models, it would take 4.2 ships and crews using the Traditional concept to equal the average presence provided by three Sea Swap crews deploying on a single ship. If the Traditional model started with a PACFLT ESG deployment rather one from LANTFLT, it would take 4.3 ships (because PACFLT presence is less than LANTFLT presence for each ship).

Note that these results could be slightly different for CSGs because their transits typically are shorter than ESG transits.

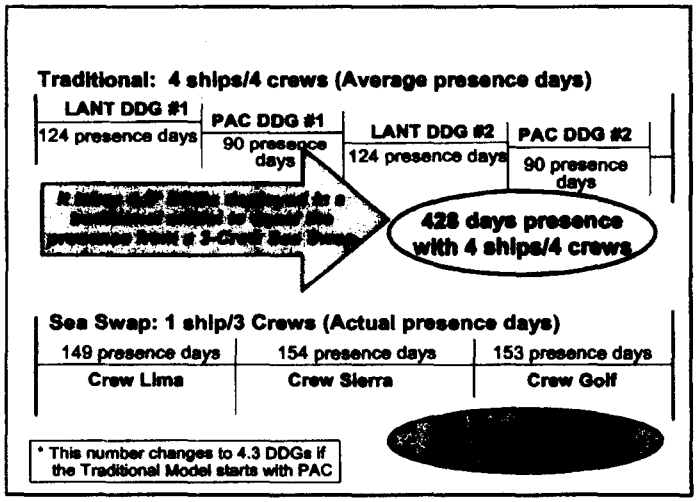


Figure A1. FFC DDG SSI and Traditional Models for ESGs Deploying to the 5th Fleet AOR

Appendix B

Operations Cost Model and Cost Comparison

Figure B1 depicts the basic cost model developed to evaluate the cost-effectiveness of the FFC DDG Sea Swap Initiative. This model was used to analyze three scenarios: actual costs, average costs and projected costs. The cost models discussed here are designed to compare costs for Sea Swap and Traditional crew rotation deployments for supporting ESGs deployed to the 5th Fleet AOR. These models are based on the operations models discussed Appendix A. These models are **marginal** rather than **total** cost models in that they assume that a significant part of the costs of training and deploying forces to the 5th Fleet AOR are the same for both crewing concepts. For example, costs are assumed to be the same for most pre-deployment training events. Therefore, only **difference** training costs for Sea Swap are considered to be part of the cost of Sea Swap for this analysis

The basic operations cost categories that were considered for comparing Sea Swap to Traditional crewing concepts include:

- Transit costs, including fuel, transit port visits, and Suez Canal transit fees
- Difference training costs, which are Unit Level Phase training events required because of configuration differences among the three Experiment Group ships. We are assuming that the general costs for Unit Level, Integrated and Sustainment Phase training are the same for all DDG crews.
- Crew Swap costs (only for Sea Swap), which include:
  - Travel, meals and lodging for crew members traveling to and from Sea Swap City, and meal and hotel costs in Sea Swap City (includes both Advance Party and the remainder of the crew)
  - Ship port costs in Sea Swap City
  - Fuel costs for transiting to and from Sea Swap City.

Traditional Operations Cost Model

$$Cost_{TRAD} = \Sigma\ Fuel_{Transit} + Suez\ Fees + Port\ Visits$$

SSI Ops Cost Model

$$Cost_{SSI} = \Sigma\ Fuel_{Transit} + Suez\ Fees + Dif\ Training + Travel\ (AP + Crew) + SS\ City\ Port\ Costs$$

Figure B1. Basic Operations Cost Model

Table B1 provides a cost comparison for the Actual, Average and Projected Cost Models:

Table B1

Cost Category	Actual Cost Model		Average Cost Model		Projected Cost Model[2]	
	Gonzalez	Traditional	ESG DDG	Traditional	ESG DDG	Tradltional
Transit Fuel	$2,739[3]	$14,439	$2,098	$14,439	$2,915	$16,283
Ship Transit Port Visits	$198	$1,040	$223	$1,040	$232	$1,082
Suez Canal Fee[4]	$330	$660	$330	$660	$343	$686
Crew Swap Transportation[5]	$1,822	$0	$2,648[6]	$0	$2,754	$0
Crew Swap Transit Port Visit (Rota)[7]	$220	$0	$106	$0	$110	$0
SSC City Hotel/Meals[8]	$675	$0	$675	$0	$702	$0
SSC Port Visit Costs[9]	$146	$0	$146	$0	$152	$0
Turnover Transit Fuel	$120	$0	$107	$0	$107	$0
Difference Training	$100	$0	$100	$0	$104	$0
Totals	$6,350	$16,139	$6,433	$16,139	$7,419	$18,051
Difference (SSI - Traditional)		-$9,789		-$9,706		-$10,632

Transit fuel costs reflect DDGs deploying with ESGs. Costs would most likely differ due to higher transit speeds for DDGs deploying with CSGs.

---

[1] All cost shown in thousands
[2] Projected Costs Model is based on Average Ops Model, current fuel price ($96.18/bbl) and 4% inflation for other costs.
[3] Actual fuel consumption is greater than Average due to GON transit back to Lebanon vicinity for real-world NEO Operations after Med port visit enroute to return to homeport
[4] Costs provided by CNSL N413
[5] Costs provided by CNSL N41
[6] Higher cost reflects flying crews via commercial air to/from SSC via liberty/training port visits each way in Rota, Spain (first TOVR used multiple Navy air assets resulting in some scheduling conflicts and delays
[7] Costs provided by CNSL N41
[8] Costs provided by CNSL N41
[9] Costs obtained from NAVSUP Cost Reporting, Analysis, and Forecasting Tool (CRAFT) Database

Appendix C

Maintenance Data and Cost Model

Material Condition Data

Maintenance data for Gonzalez must be evaluated separately from non-deployer Experiment Group ships Laboon and Stout. Gonzalez extended deployment necessitated comparing Gonzalez maintenance data to that of other recent DDG deployers and Control Group deployers Ross and Cole. However, due to Ross and Cole's return from deployment in November and December 2006, maintenance data analysis was not complete as of this report.

The results of analyzing material condition data for several measures are summarized in Tables C1 through C4.

Table C1

Gonzalez	9	5	10
Control Group (Ross)	9	1	14

Table C2 (Non-Deployers)

Laboon	89.97%
Stout	92.48%
The Sullivans	92.32%

Table C3

Laboon	7.17
Stout	7.13
Control Group	7.44

Table C4 (Non-Deployers)

Laboon	7	11	6
Stout	7	8	9
The Sullivans	10	4	10

[1] Critical System Assessment (CSA): INSURV evaluated 24 shipboard systems and assigned each system an Equipment Operating Condition (EOC) score. The table categorizes the number of systems out of the 24 systems evaluated. This table displays the trend between the initial CSA scores for both Gonzalez and Ross, and their respective post-deployment CSAs.

Non-Deploying Ship Material Condition

The material condition of non-deploying Sea Swap ships (Laboon and Stout) did not differ significantly from that of the non-deployed Control Group ship (The Sullivans). A summary of results for several material condition indicators is shown below. This summary was derived from detailed analysis of data for Stout and Laboon compared to The Sullivans.

- SORTS equipment ratings indicated Laboon's material condition was better than The Sullivans, while Stout's ratings were worse. Laboon reported more days of C-1 or C-2 SORTS ratings for equipment (92% vs. 83% for The Sullivans). It should be noted that Stout had a long-standing SONAR system casualty that existed prior to the start of Sea Swap. This casualty was not corrected until a depot level availability in June 2006. As a result, Stout reported C-1 or C-2 for fewer days than The Sullivans (50% vs. 83%).
- The percent of time free of C-3 and C-4 CASREPS indicated similar material conditions for all three non-deploying ships: Laboon and Stout were free of C-3 and C-4 CASREPS for about the same percent of time as The Sullivans (details are provided in Table C2 in Appendix C).
- The number of significant 2-Kilos indicated that material condition was similar for non-deploying Experiment and Control Group ships: The Sullivans' 2-Kilo data did not appear to be representative, so data for Ross and Cole during non-deployment periods were included in this analysis. The average number of significant 2-Kilos was similar for Experiment Group and Control Group ships during non-deployment periods. (Details are provided in Table C3 in Appendix C.)
- The average monthly Maintenance Figure of Merit (MFOM) indicated that The Sullivans' material condition was better: the average MFOM for Laboon and Stout (27.52) was higher (worse) than that for The Sullivans (24.18).
- CSA results are mixed and do not indicate a better material condition for any ship: Laboon and Stout had fewer improved systems, but also had fewer degraded systems (details are provided in Table C4 in Appendix C).

The maintenance work levels for Laboon and Stout were lower than the work levels for The Sullivans. Both Laboon and Stout had fewer C-2 CASREPS than did The Sullivans (data provided in Table C5). In addition, both Laboon and Stout, on average, opened fewer 2-Kilos each month than did The Sullivans (see Table C6).

Table C5

The Sullivans	184
Stout	138
Laboon	114

Table C6

The Sullivans	306.00
Stout	142.29
Laboon	139.67

Maintenance Cost Model

There are four areas of cost in the maintenance cost model:

1. The money the crew spends on maintenance and repair (EMRM)
2. The money the RMC spends on voyage repairs, Continuous Maintenance, and emergent repairs
3. The money spent in the post-deployment availability (DSRA)
4. The estimated cost to do repairs documented in 2-Kilos still open after the availability (backlog)

The cost model is these costs summed over the analysis time period, as shown in the equation below:

$$\textbf{Maintenance Cost} = \Sigma(\textbf{EMRM} + \textbf{RMC} + (\textbf{D})\textbf{SRA} + \textbf{Backlog})_t$$

Maintenance cost analysis of the deployed ship will be completed by calculating a maintenance cost for a comparison group of 4 traditional DDG deployers using average DDG costs and comparing that cost to the maintenance cost for Gonzalez.

Appendix D

Reenlistment Data

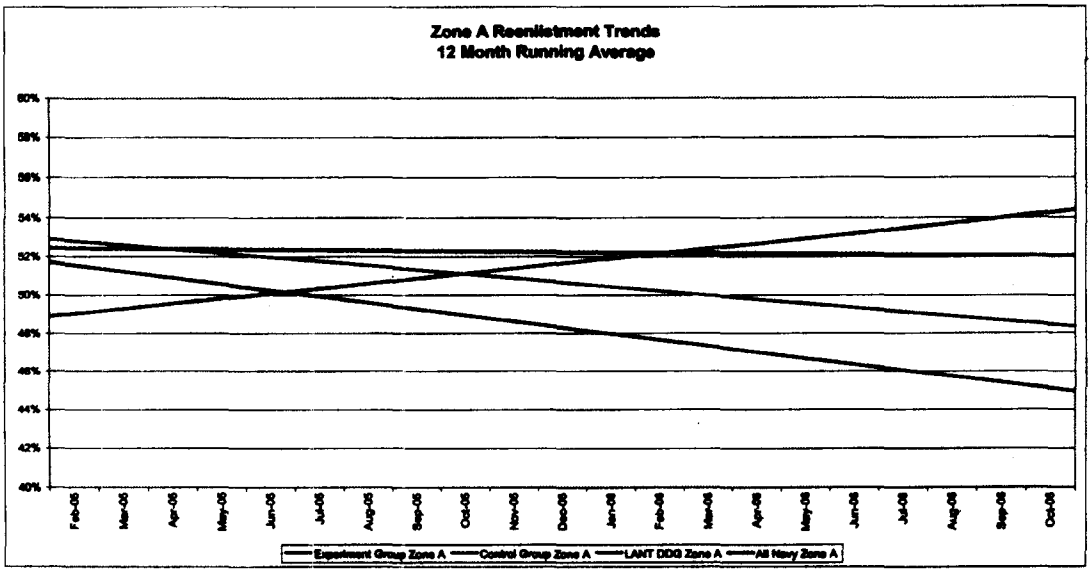


Figure D1. Zone A Reenlistment Trends

Note: Because the trend lines are closely grouped for Zone A in Figure D1, only a portion of the Y-axis scale is shown to make the chart easier to read.

As shown in Figure D1, the Zone A reenlistment rate for the LANT DDG group show a slightly positive trend with the average change equal to 0.26% per month. Both Experiment and Control Group averages show negative trends of -0.32% per month and -0.22% per month respectively. The average change per month is based on the slope of the trend lines.

Since May 2005 the Experiment Group 12-month running average has diverged from the other groups. However, no conclusion can be drawn until the data for the Control Group deployers are collected and analyzed in early 2007.

The trend lines were developed in Excel using the least squares mathematical optimization technique. This method identifies the line which most closely approximates the data ("best fit") by minimizing the sum of the squares of the ordinate (vertical) differences between points generated by the line equation and corresponding points in the data.

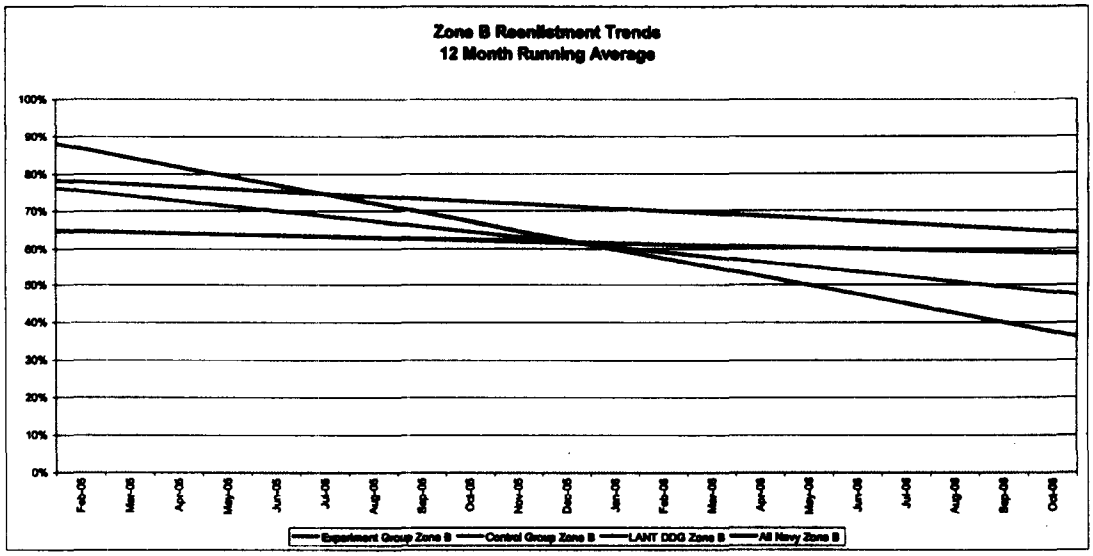


Figure D2. Zone B Reenlistment Trends

Each group in Zone B experienced a downward trend for the FFC DDG SSI time period as illustrated in Figure D2. As in Zone A, the All DDG group follows closely the All Navy group for Zone B.

Note that the Experiment Group started with the highest initial reenlistment rate (89.24%) and declined at a noticeably greater rate than both the LANT DDG and Control Groups.

Given the fact that the number of crew members at EAOS in Zone B for any given 12-month period is small (3-8), it is not clear whether the differences between the Experiment Group and the other groups are attributable to Sea Swap, or if they represent a short-term trend driven by small numbers that will regress to the mean at some later time.

No conclusion can be drawn about how Sea Swap impacts Zone B reenlistment until data for the Control Group deployers Ross and Cole are collected and analyzed.

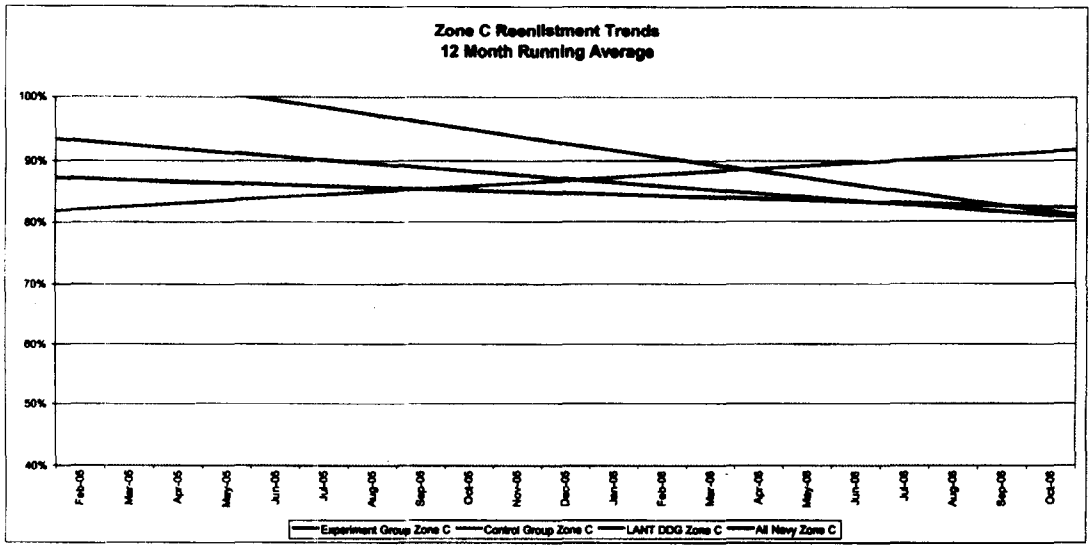


Figure D3. Zone C Reenlistment Trends

Based on the trend lines shown in Figure D3, both the LANT DDG and Experiment Groups experienced a decline in Zone C reenlistment rates with Experiment Group experiencing the greatest decline. Note that the Experiment group started with the highest 12 month running average (100%) and as of August 2006 had the lowest 12-month running average. In comparison, the Control Group experienced a positive trend (0.49% per month), starting below the initial All DDG 12-month running average of 93.07% and ending with the highest 12-month running average. As in zones A and B, the All DDG group closely followed the All Navy Group.

Despite the trend exhibited by the Experiment Group, it is not yet clear if Sea Swap has had an effect on Zone C reenlistment. Given the fact that the number of crew members at EAOS in Zone C for any given 12 month period is small (4-8), it is not clear yet that the differences between the Experiment Group and the other groups are attributable to Sea Swap, or if they represent a short-term trend driven by small numbers that will regress to the mean at some later time.

No conclusion can be drawn about how Sea Swap impacts Zone C reenlistment until data for the control group are collected and analyzed.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 12, 2007

The Honorable Daniel K. Inouye
Chairman
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the conference report accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information on accelerating VIRGINIA-Class submarine production to two ships per year beginning in Fiscal Year 2010.

In 2005, Navy determined that 48 attack submarines were required to meet future projected warfighting requirements. Navy's shipbuilding program of record identified in the Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2007 (30-Year Shipbuilding Plan) allows the attack submarine force to drop below 48 from 2020-2033, reaching a low of 40 in 2028. Accelerating the VIRGINIA-Class build rate to two ships per year in Fiscal Year 2010, rather than 2012 as planned, would provide the Fleet two additional attack submarines and reduce the time that the Navy has less than 48 attack submarines from fourteen years to nine years. This acceleration would increase Navy ship construction costs by $5.1 billion, almost ten percent, between Fiscal Years 2008-2011.

Navy's 30-Year Shipbuilding Plan creates the best balance between anticipated requirements and resources. While accelerating the build rate in 2010 would reduce some of the long-term risk associated with having less than 48 attack submarines, it would also create risk by destabilizing the shipbuilding plan. Navy has begun developing a series of mitigation strategies that could be used, if feasible, to reduce the risk to our operational commanders while the force is below 48 attack submarines.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 12, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the conference report accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information on accelerating VIRGINIA-Class submarine production to two ships per year beginning in Fiscal Year 2010.

In 2005, Navy determined that 48 attack submarines were required to meet future projected warfighting requirements. Navy's shipbuilding program of record identified in the Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2007 (30-Year Shipbuilding Plan) allows the attack submarine force to drop below 48 from 2020-2033, reaching a low of 40 in 2028. Accelerating the VIRGINIA-Class build rate to two ships per year in Fiscal Year 2010, rather than 2012 as planned, would provide the Fleet two additional attack submarines and reduce the time that the Navy has less than 48 attack submarines from fourteen years to nine years. This acceleration would increase Navy ship construction costs by $5.1 billion, almost ten percent, between Fiscal Years 2008-2011.

Navy's 30-Year Shipbuilding Plan creates the best balance between anticipated requirements and resources. While accelerating the build rate in 2010 would reduce some of the long-term risk associated with having less than 48 attack submarines, it would also create risk by destabilizing the shipbuilding plan. Navy has begun developing a series of mitigation strategies that could be used, if feasible, to reduce the risk to our operational commanders while the force is below 48 attack submarines.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 12, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the conference report accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information on accelerating VIRGINIA-Class submarine production to two ships per year beginning in Fiscal Year 2010.

In 2005, Navy determined that 48 attack submarines were required to meet future projected warfighting requirements. Navy's shipbuilding program of record identified in the Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2007 (30-Year Shipbuilding Plan) allows the attack submarine force to drop below 48 from 2020-2033, reaching a low of 40 in 2028. Accelerating the VIRGINIA-Class build rate to two ships per year in Fiscal Year 2010, rather than 2012 as planned, would provide the Fleet two additional attack submarines and reduce the time that the Navy has less than 48 attack submarines from fourteen years to nine years. This acceleration would increase Navy ship construction costs by $5.1 billion, almost ten percent, between Fiscal Years 2008-2011.

Navy's 30-Year Shipbuilding Plan creates the best balance between anticipated requirements and resources. While accelerating the build rate in 2010 would reduce some of the long-term risk associated with having less than 48 attack submarines, it would also create risk by destabilizing the shipbuilding plan. Navy has begun developing a series of mitigation strategies that could be used, if feasible, to reduce the risk to our operational commanders while the force is below 48 attack submarines.

A similar letter has been sent to Chairmen Levin, Inouye, and Skelton. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 12, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the conference report accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information on accelerating VIRGINIA-Class submarine production to two ships per year beginning in Fiscal Year 2010.

In 2005, Navy determined that 48 attack submarines were required to meet future projected warfighting requirements. Navy's shipbuilding program of record identified in the Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2007 (30-Year Shipbuilding Plan) allows the attack submarine force to drop below 48 from 2020-2033, reaching a low of 40 in 2028. Accelerating the VIRGINIA-Class build rate to two ships per year in Fiscal Year 2010, rather than 2012 as planned, would provide the Fleet two additional attack submarines and reduce the time that the Navy has less than 48 attack submarines from fourteen years to nine years. This acceleration would increase Navy ship construction costs by $5.1 billion, almost ten percent, between Fiscal Years 2008-2011.

Navy's 30-Year Shipbuilding Plan creates the best balance between anticipated requirements and resources. While accelerating the build rate in 2010 would reduce some of the long-term risk associated with having less than 48 attack submarines, it would also create risk by destabilizing the shipbuilding plan. Navy has begun developing a series of mitigation strategies that could be used, if feasible, to reduce the risk to our operational commanders while the force is below 48 attack submarines

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

Report to Congress on

Accelerating VIRGINIA-Class Submarine Construction

PREPARED BY:
Director, Submarine Warfare
Chief of Naval Operations, N87
2000 Navy Pentagon, Room 5C459
Washington, DC 20350-2000

February 2007

Requirement

The conference report (House Report 109-702) accompanying the John Warner National Defense Authorization Act for Fiscal Year 2007 (Public Law 109-364) contained the following requirement:

"Therefore, the conferees direct the Secretary [of the Navy] to submit a report to the congressional defense committees with the fiscal year 2008 budget request that would identify the necessary planning and programming required to increase *Virginia* class construction to 2 boats per year commencing in fiscal year 2010. The report shall consider program cost, shipyard workload impacts, budget implications, and other significant factors that would weigh in the decision process regarding acceleration of attack submarine construction. The report shall also identify the operational impact associated with delaying the increase in attack submarine construction until 2012 in accordance with the program of record."

This report is submitted to answer this requirement.

Background

In 2005, the Chief of Naval Operations determined that a force of about 313 ships, including 48 attack submarines, was necessary to meet future projected warfighting requirements. These requirements are indexed to the Department of Defense fiscal year 2020 threat assessments and are compliant with the 2006 Quadrennial Defense Review and Strategic Planning Guidance. The Navy's Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2007 (hereafter, the "30-Year Shipbuilding Plan") describes a shipbuilding plan that provides the Navy less than 48 attack submarines from 2020 through 2033, reaching a minimum of 40 attack submarines in 2028 and 2029.

The 30-Year Shipbuilding Plan calls for building one VIRGINIA-Class attack submarine per year until fiscal year 2012, when the planned build rate increases to two submarines per year. One method to reduce the duration and magnitude of the planned future attack submarine shortfall would be to increase the build rate (to two submarines per year) sooner than 2012. The earliest the build rate could be increased is fiscal year 2010, since the long-lead (two years) items required to build the additional submarines can be purchased no earlier than fiscal year 2008.

Program Cost

Increasing the VIRGINIA-Class construction rate to two submarines per year in fiscal year 2010 (vice fiscal year 2012 as planned) would require an additional $5.1 billion be allocated to VIRGINIA-Class submarine construction in fiscal years 2008-2011. The specific adjustments required to the Shipbuilding and Conversion, Navy (SCN) program of record (as submitted in the President's Fiscal Year 2008 Budget request) are provided in the table below.

Programming Required for Accelerated VIRGINIA-Class Procurement
(Dollars in then-year billions, rounded to nearest tenth)

	FY 2008	FY 2009	FY 2010	FY 2011	Total FY 2008-11
VIRGINIA-Class Submarine	1.8	2.2	2.0	2.0	8.0
VIRGINIA-Class Submarine (AP-CY)*	0.7	1.2	1.7	1.7	5.3
Total	2.5	3.4	3.7	3.7	13.3

*Includes funds for advanced procurement of long-lead items and for large-lot procurement of materials and major government-furnished equipment to achieve EOQ savings under a multi-year procurement (MYP) contract.

	FY 2008	FY 2009	FY 2010	FY 2011	Total FY 2008-11
VIRGINIA-Class Submarine	-	-	1.9	1.7	3.6
VIRGINIA-Class Submarine (AP-CY)*	0.4	0.8	0.3	-	1.5
Total	0.4	0.8	2.2	1.7	5.1

	FY 2008	FY 2009	FY 2010	FY 2011	Total FY 2008-11
VIRGINIA-Class Submarine	1.8	2.2	3.9	3.7	11.6
VIRGINIA-Class Submarine (AP-CY)*	1.1	2.0	2.0	1.7	6.8
Total	2.9	4.2	5.9	5.4	18.4

This estimate assumes the submarines are purchased as part of a Multi-Year Procurement (MYP) contract with Economic Order Quantity (EOQ) for fiscal years 2009-2013. The VIRGINIA-Class Submarine Advanced Procurement-Current Year (AP-CY) funding line includes funds for advanced procurement of long-lead items and for large-lot procurement of materials and major government-furnished equipment to achieve EOQ savings under the MYP contract.

The Navy is pursuing cost savings via construction process improvements and design changes to allow two VIRGINIA-Class submarines to be built per year for a total cost of $4 billion (in fiscal year 2005 dollars) per year in fiscal year 2012 (when the Navy plans to start procuring two submarines per year). (These efforts were described to Congress in the Navy's May 2006 Report on VIRGINIA-Class Submarine Technology Insertion to Lower Cost.) While some of these cost savings will be realized sooner and are factored into the above estimates, the Navy will not fully achieve this goal until fiscal year 2012.

Shipyard Workload Impact

Submarine shipyards can support production of two submarines per year in fiscal year 2010 without adversely impacting planned downstream delivery schedules or maintenance work. The shipyards will be able to leverage the efficiencies of a MYP contract with EOQ to meet the additional labor and facility needs within the funding estimates provided in the table above.

Budget Implications

The additional $5.1 billion required to increase the VIRGINIA-Class submarine build rate to two submarines per year in fiscal year 2010 represents nearly one-tenth of the total shipbuilding funds the Navy has planned for new construction during fiscal years 2008-2011 (as reflected in the President's Fiscal Year 2008 Budget request). Reprogramming these funds within the President's Budget for accelerated VIRGINIA-Class submarine construction would force the Navy to significantly deviate from the 30-Year Shipbuilding Plan. This would upset the stability that the plan was establishing and result in unacceptable impacts to other Navy shipbuilding programs and their associated industrial facilities.

No changes were made in the President's Fiscal Year 2008 Budget request to the shipbuilding profiles presented in the President's Fiscal Year 2007 Budget. This has created stability

that allows industry to more efficiently project their requirements and reduce overall shipbuilding costs.

Operational Impact

The 30-Year Shipbuilding Plan contains some risk when the force level is less than 48 attack submarines. Accelerating the VIRGINIA-Class submarine build rate to two submarines per year in fiscal year 2010 provides two submarines sooner than planned (before 2020). This would reduce the time the fleet has less than 48 attack submarines from 14 years (2020-2033) to 9 years (2024-2032), and improve the lowest level to 42 attack submarines instead of 40.

The Navy considers the long-term risk contained in the 30-Year Shipbuilding Plan (as a result of having less than 48 attack submarines from 2020-2033) to be manageable as part of a stable shipbuilding plan that is properly balanced within anticipated resources. The Navy is pursuing mitigation strategies to reduce this risk that may be used while the force has less than 48 attack submarines. While accelerating the VIRGINIA-Class submarine build rate to two submarines per year in fiscal year 2010 would also mitigate some of this risk, re-programming the necessary funds would result in an unbalanced naval force. This would increase risk to unacceptable levels elsewhere by changing the capability mix outlined in the 30-Year Shipbuilding Plan.

Conclusion

The 30-Year Shipbuilding Plan is the best balance of anticipated resources to the Navy's force structure requirements. Having less than 48 attack submarines is not ideal, but the long-term risk incurred is manageable as part of a balanced, stable shipbuilding plan. Accelerating the VIRGINIA-Class submarine build rate from that in the 30-Year Shipbuilding Plan requires a sizeable re-programming of the Navy's resources. These resources are best used as recommended in the President's Fiscal Year 2008 Budget request to provide the Nation and the Navy what they need to meet national security requirements with an acceptable level of risk.

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000
MAR 0 8 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by Section 1016 of the National Defense Authorization Act, Public Law 109-364, the enclosed provides the findings of an assessment of the naval vessel construction efficiencies and the effectiveness of special contractor incentives.

The Navy has made aggressive strides to improve the efficiencies of shipbuilding in recent years. These improvements are in the areas of design changes, production initiatives, and materials. In addition to the changes made to date, the Navy also has strategies for continuing to enhance efficiencies in the future through modularity, open architecture, Lean Six Sigma, and corporate purchasing initiatives. In order to foster these types of changes, the Navy has utilized both performance specifications and contracting incentives.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

MAR 0 8 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by Section 1016 of the National Defense Authorization Act, Public Law 109-364, the enclosed provides the findings of an assessment of the naval vessel construction efficiencies and the effectiveness of special contractor incentives.

The Navy has made aggressive strides to improve the efficiencies of shipbuilding in recent years. These improvements are in the areas of design changes, production initiatives, and materials. In addition to the changes made to date, the Navy also has strategies for continuing to enhance efficiencies in the future through modularity, open architecture, Lean Six Sigma, and corporate purchasing initiatives. In order to foster these types of changes, the Navy has utilized both performance specifications and contracting incentives.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

MAR 0 8 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by Section 1016 of the National Defense Authorization Act, Public Law 109-364, the enclosed provides the findings of an assessment of the naval vessel construction efficiencies and the effectiveness of special contractor incentives.

The Navy has made aggressive strides to improve the efficiencies of shipbuilding in recent years. These improvements are in the areas of design changes, production initiatives, and materials. In addition to the changes made to date, the Navy also has strategies for continuing to enhance efficiencies in the future through modularity, open architecture, Lean Six Sigma, and corporate purchasing initiatives. In order to foster these types of changes, the Navy has utilized both performance specifications and contracting incentives.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, DC 20350-1000

MAR 0 8 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by Section 1016 of the National Defense Authorization Act, Public Law 109-364, the enclosed provides the findings of an assessment of the naval vessel construction efficiencies and the effectiveness of special contractor incentives.

The Navy has made aggressive strides to improve the efficiencies of shipbuilding in recent years. These improvements are in the areas of design changes, production initiatives, and materials. In addition to the changes made to date, the Navy also has strategies for continuing to enhance efficiencies in the future through modularity, open architecture, Lean Six Sigma, and corporate purchasing initiatives. In order to foster these types of changes, the Navy has utilized both performance specifications and contracting incentives.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

REPORT TO CONGRESS

on

Assessments of Naval Vessel Construction Efficiencies and of Effectiveness of Special Contractor Incentives

PREPARED BY

Deputy Assistant Secretary of the Navy
For Shipbuilding Programs
Office of the Assistant Secretary of the Navy
Research, Development, and Acquisition
1000 Navy Pentagon
Washington, D.C. 20350

March 2007

BACKGROUND

Section 1016 of the Fiscal Year 2007 National Defense Authorization Act, Public Law 109-364, directed the Secretary to submit a report to the congressional defense committees on the findings of naval vessel construction efficiencies and the effectiveness of special contractor incentives assessments. Specifically, the Senate requires the Secretary to identify construction inefficiencies; identify innovative design and production technologies, processes, and performance incentives that can reduce those inefficiencies; and detail actions to implement those processes and incentives. In addition, the Secretary is tasked with assessing the effectiveness of special incentives for investment by the contractor in facilities and process improvements. This assessment should include a description of the use of these incentives, the evaluation process for selecting projects, the progress made, and recommendations for legislation to enhance contract incentives.

SUMMARY OF NAVY ACTIONS

1. Continue Lean Six Sigma efforts, in the area of shipbuilding, to reduce construction inefficiencies
2. Continue the use of performance specifications to allow contractors to reduce design inefficiencies and costs
3. Implement Capital Expenditure (CAPEX) type incentives into future Navy shipbuilding contracts, as appropriate

DISCUSSION OF KEY FINDINGS

Construction Inefficiencies

In April 2006, the Navy released a Report to Congress addressing the "Assessment of the Efficiency of Naval Shipbuilding". That report addressed findings from an independent study on the cost effectiveness of the ship construction program. Because of the recency of that study, the Navy has not commissioned another independent study of shipbuilding efficiencies. However, when examining last year's conclusions, some of the same problems still exist. For instance, the Navy is still experiencing issues with the design for production and manpower inflexibility.

The Navy continues to face issues with densely packed ships. By densely packing the ship, the designers make it more difficult to produce the design, as more equipment and infrastructure must be sequenced for installation in the same limited space. This increases the production costs. Unfortunately, this lack of design for producibility is a challenge associated with our older designs, some of which are still in production (e.g., DDG 51). However, the Navy has recognized this problem and has moved towards incorporating producibility concerns into the newer designs. For instance, the DDG 1000 has a less dense design and is anticipated to show clear benefits in its producibility. This should eliminate some of the construction inefficiencies.

In terms of manpower inflexibility, the shipbuilders currently face union contracts that often do not allow multi-disciplinary teams or cross-training of employees. Because of these restrictions, additional manpower and training is often required on shipbuilding programs. Many of our shipbuilders also face issues associated with inexperienced labor or high turnover, which increases training costs and reduces productivity. Unfortunately, these issues are out of the direct control of the Navy.

Another construction inefficiency that was not covered in the last report, but has emerged on some of the more recent ships is out of sequence work. By performing work out of sequence, the shipbuilders' production time and cost are increased, as well as potentially causing rework. For instance, the Littoral Combat Ship (LCS) program has experienced cost overruns on LCS 1, partially due to an issue with incorrectly manufactured reduction gears. Because of a 27 week delay in receiving the corrected gears, the schedule and sequence of work on the remainder of the ship had to be altered. In another example, subsequent to Hurricane Katrina, the LHD 8 program experienced a significant loss of pre-manufactured materials and production facility capabilities, which introduced delays in replacing needed materials. Available materials were used to sustain production efforts, but in many cases, caused work to be performed out of sequence. This out of sequence work caused downstream delays and cost increases due to rework.

Design and Production Solutions to Reduce Inefficiencies

The Navy has implemented a number of design and production solutions to reduce the inefficiencies in our shipbuilding programs. In terms of materials and logistics, the Navy began a program to investigate improvement opportunities for contractor furnished equipment/government furnished equipment (CFE/GFE). The program was designed to eliminate duplicate inspection processes, reduce cycle times, and reduce rework. Similarly, a common parts catalog has been established, which will improve inventory control and reduce the number of unique items. Program Executive Office (PEO) (Ships) used a Lean Six Sigma processes to reduce the materials used in the fleet introduction process and streamline their outfitting inventory management.

There are a number of design solutions that have been implemented to reduce inefficiencies. All PEOs use an Integrated Data Environment (IDE) as a repository for all ship drawings. This facilitates common designs, common parts, and configuration management. Similarly, a streamlined change control process has been instituted across ships programs to reduce the cycle time for essential changes. Also, the design teams have implemented Lean designs on ships. For instance, the Navy has reduced redundant structural brackets through efforts with the American Bureau of Shipping. They have also been able to replace hydraulic motors with cheaper and simpler magnet motors on weapon stowage and handling systems.

Production activities have also been targeted for cost reductions. A number of Lean Six Sigma events were carried out to reduce the time and manpower needs for production tasks. In terms of large production activities, many of the shipyards continue to improve their modular construction capabilities and to construct items as "Mega" or "Super" units.

These improvements allow more efficient construction and outfitting of the units prior to assembly.

Several Navy programs have utilized Lean Six Sigma events to reduce cycle times, improve productivity, and reduce costs. Some examples include: 1) Pipe fabrication investments to improve quality and productivity; 2) Changing the Grandblocking strategy to reduce assembly and outfitting times; 3) Eliminating unnecessary steps in hydrostatic testing; and 4) Switching to reduced-cure-time paints. As an example of a certification improvement, the VIRGINIA Class Submarine program used Lean Six Sigma to develop a new certification process for the Fly-By-Wire Ship Control System, which eliminates variation and waste from the process. All of these activities reduce costs and time associated with production and modernization.

Actions to Implement – Performance Specifications

There are two major ways that the Navy has been trying to foster design efficiencies. The first is through performance specifications and the other is through contracting strategies. The Navy has moved away from standards to design specifications. This allows the contractor to meet requirements with increased "trade space", enabling continuous competition and exploitation of commercial techniques, materials, and designs.

The Navy is also exploring a common specification for future ships. Common specifications and common parts catalogues must be used in the earliest stages of ship design. Though the greatest opportunities for invoking standard specifications are in future Navy ship designs, more near term economies are achievable through the implementation of common GFE ordering systems across shipyards. Contracting methods currently exist to group material orders across contracts, though in many cases the use of uncommon parts impedes the greatest economies.

With more than three-dozen new construction ships under contract, the potential also exists to reduce material procurement costs within and across shipyards. For instance, Northrop Grumman has begun to consolidate steel purchases across projects. Across shipyards, the use of cross-corporate purchasing procedures is possible and would not prevent the corporations from complying with the requirement of the Truth in Negotiations Act. Rather, one could allow specified exclusions from the certificate, and then require another certificate at the time of agreement on price for the corporate buys. In other words, the price would still be certified as accurate, current, and complete, except for those items specifically excluded, and then later certified for the remaining costs associated with the bulk buy.

Actions to Implement – Special Contract Incentives for Investment

The second area of emphasis is contracting strategies. As mentioned in last year's report, one of the major areas that American shipyards lag behind International yards is in the disciplines addressed through capital investments into improved processes and

infrastructure. Although this is not typically an area that invites significant government involvement, the Navy has found a means to motivate the shipbuilders to enhance their facilities. This deficiency is addressed through contract incentives.

There are two main contracting incentive vehicles that the Navy has used recently to improve the infrastructure of the shipbuilders. The first is the specialized case related to Hurricane Katrina, in which the Navy has special authority to pay for infrastructure improvements in Gulf Coast Shipyards. The second, more traditional, means of motivating shipbuilders is through specific contract incentives.

The Katrina related improvements are authorized via Public Law 109-234. This law provides not less that $140 Million for improvements to the Gulf Coast shipyards that have existing Navy shipbuilding contracts and were damaged by Hurricane Katrina. While these funds were, in part, designated to expedite the repair of damaged facilities, they were also designated for improvements to the facilities which would result in future cost savings. To execute this funding, NAVSEA requested proposals which were evaluated by a review team for the business case, measurable return on investment, technical merit, and strategic fit. The Navy has selected eight of the proposed projects to be awarded.

Since the Navy requires special regulatory relief to directly fund shipbuilding capitalization projects, contract incentives are more typically used as a means to motivate contractors to make improvements in processes and facilities. NAVSEA has recently implemented a number of different shipbuilding facilities investment incentives. For instance, the VIRGINIA Class Capital Expenditure (CAPEX) program is a 1.5 percent special incentive that is included in the VIRGINIA Class Block II multi-year ship construction contract. This program allows a portion of the overall contract profit to be diverted to fund a series of incentives. To earn the incentive, the shipbuilder has to present a Business Case Analysis that shows the cost/benefit analysis of the improvement. The shipbuilder is funded up to 50 percent of the incentive at the start of the improvement, with the remaining 50 percent available upon successful completion. The Navy also has the option to recover all funds used in the project if the project is unsuccessful, thus additionally motivating the shipbuilder to complete projects in an effective and timely manner. The Navy has up to $91 Million available to fund this program over the life of the contract (until 2008). At this time, the shipbuilder has spent $35.6 Million, for a return of $320 Million in future cost avoidance.

Similarly, the DDG 51 Class program has proposed a CAPEX-type infrastructure improvement project called the "Ultra Hall". Using primarily contract withholdings and incentives, Bath Iron Works (BIW) has proposed to build two larger outfitting bays and purchase additional equipment. This plan allows the shipbuilder to reduce staffing, reduce costs, improve quality, and enhance the modular construction of surface combatants as BIW is able to do a larger portion of the construction in a more modern covered facility. These savings will be realized on future DDG 51 ships, as well as future shipbuilding programs.

Another case of contracting incentives proving successful is the CVN 78 Cost Target Incentives. These incentives are in place to motivate Northrop Grumman to design the ship to meet cost targets established in the Annual Long Range Plan for Construction of Naval Vessels for FY 2008. Coupled with incentives for technical performance in the design contract, the cost target incentive provides a balanced approach to cost, schedule, and performance control. Similar to the CAPEX incentive, a fee recovery provision exists to recover a significant portion of the fee if the contractor deviates from previously provided cost estimates during construction contract proposal submission.

The Navy plans to continue the use of CAPEX-type incentives in shipbuilding contract awards. These incentives ensure the Navy is able to motivate shipbuilders to improve their facilities and processes, resulting in long-term savings to the government. Clearly, incentives have been quite successful on existing contracts, with an approximate 900 percent return on investment for the VIRGINIA Class submarine program. The Ultra Hall project is also expected to result in substantial cost avoidance.

Legislative Recommendations

The Navy has no recommendations for legislative proposals at this time.

CONCLUSIONS DERIVED FROM THE STUDY

The Navy has made aggressive strides to improve the efficiencies of shipbuilding. These improvements are in the areas of design changes, production initiatives, and materials. In order to foster these types of changes, the Navy has utilized both performance specifications and contracting incentives. The CAPEX-type of incentive has proven to be an extremely successful example of how special contracting incentives can improve shipbuilding infrastructure and efficiencies which can result in shipbuilding program cost savings. The Navy also plans to continue encouraging our workforce and our shipbuilding contractors to use Lean Six Sigma techniques to improve our processes.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 23, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 324(a) of the FY 2007 National Defense Authorization Act, Public Law 109-364, specified that the Secretary of the Navy may not deploy the Marine Corps Total Force System (MCTFS) to the Navy until the Chairman of the Defense Business Systems Management Committee has provided written determination that the deployment of MCTFS to the Navy is in the bests interests of the Department of Defense. In addition, Section 324(b) directed the Secretary of the Navy to provide a report to the Congressional Defense Committees and the Comptroller General on MCTFS.

As directed by Section 324(b), the enclosed Navy report provides an analysis of alternatives comparing the Defense Integrated Military Human Resources Systems (DIMHRS) and MCTFS via a business case analysis, and an analysis of compatibility with the enterprise architecture of the Department of Defense. The decision for Navy to use MCTFS unifies the Department of the Navy under one integrated personnel and pay system. This interim step is a cost effective integration of Navy and Marine Corps systems, until such time that the Department transitions to DIMHRS. The Department of the Navy remains committed to a transition to DIMHRS following the successful incorporations by Army and Air Force.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, Murtha and the Comptroller General.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 23, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 324(a) of the FY 2007 National Defense Authorization Act, Public Law 109-364, specified that the Secretary of the Navy may not deploy the Marine Corps Total Force System (MCTFS) to the Navy until the Chairman of the Defense Business Systems Management Committee has provided written determination that the deployment of MCTFS to the Navy is in the bests interests of the Department of Defense. In addition, Section 324(b) directed the Secretary of the Navy to provide a report to the Congressional Defense Committees and the Comptroller General on MCTFS.

As directed by Section 324(b), the enclosed Navy report provides an analysis of alternatives comparing the Defense Integrated Military Human Resources Systems (DIMHRS) and MCTFS via a business case analysis, and an analysis of compatibility with the enterprise architecture of the Department of Defense. The decision for Navy to use MCTFS unifies the Department of the Navy under one integrated personnel and pay system. This interim step is a cost effective integration of Navy and Marine Corps systems, until such time that the Department transitions to DIMHRS. The Department of the Navy remains committed to a transition to DIMHRS following the successful incorporations by Army and Air Force.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, Murtha and the Comptroller General.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 23, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 324(a) of the FY 2007 National Defense Authorization Act, Public Law 109-364, specified that the Secretary of the Navy may not deploy the Marine Corps Total Force System (MCTFS) to the Navy until the Chairman of the Defense Business Systems Management Committee has provided written determination that the deployment of MCTFS to the Navy is in the bests interests of the Department of Defense. In addition, Section 324(b) directed the Secretary of the Navy to provide a report to the Congressional Defense Committees and the Comptroller General on MCTFS.

As directed by Section 324(b), the enclosed Navy report provides an analysis of alternatives comparing the Defense Integrated Military Human Resources Systems (DIMHRS) and MCTFS via a business case analysis, and an analysis of compatibility with the enterprise architecture of the Department of Defense. The decision for Navy to use MCTFS unifies the Department of the Navy under one integrated personnel and pay system. This interim step is a cost effective integration of Navy and Marine Corps systems, until such time that the Department transitions to DIMHRS. The Department of the Navy remains committed to a transition to DIMHRS following the successful incorporations by Army and Air Force.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, Murtha and the Comptroller General.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 23, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 324(a) of the FY 2007 National Defense Authorization Act, Public Law 109-364, specified that the Secretary of the Navy may not deploy the Marine Corps Total Force System (MCTFS) to the Navy until the Chairman of the Defense Business Systems Management Committee has provided written determination that the deployment of MCTFS to the Navy is in the bests interests of the Department of Defense. In addition, Section 324(b) directed the Secretary of the Navy to provide a report to the Congressional Defense Committees and the Comptroller General on MCTFS.

As directed by Section 324(b), the enclosed Navy report provides an analysis of alternatives comparing the Defense Integrated Military Human Resources Systems (DIMHRS) and MCTFS via a business case analysis, and an analysis of compatibility with the enterprise architecture of the Department of Defense. The decision for Navy to use MCTFS unifies the Department of the Navy under one integrated personnel and pay system. This interim step is a cost effective integration of Navy and Marine Corps systems, until such time that the Department transitions to DIMHRS. The Department of the Navy remains committed to a transition to DIMHRS following the successful incorporations by Army and Air Force.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, Inouye, and the Comptroller General.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 23, 2007

The Honorable David M. Walker
Comptroller General of
the United States
Washington, DC 20548

Dear Mr. Walker:

Section 324(a) of the FY 2007 National Defense Authorization Act, Public Law 109-364, specified that the Secretary of the Navy may not deploy the Marine Corps Total Force System (MCTFS) to the Navy until the Chairman of the Defense Business Systems Management Committee has provided written determination that the deployment of MCTFS to the Navy is in the bests interests of the Department of Defense. In addition, Section 324(b) directed the Secretary of the Navy to provide a report to the Congressional Defense Committees and the Comptroller General on MCTFS.

As directed by Section 324(b), the enclosed Navy report provides an analysis of alternatives comparing the Defense Integrated Military Human Resources Systems (DIMHRS) and MCTFS via a business case analysis, and an analysis of compatibility with the enterprise architecture of the Department of Defense. The decision for Navy to use MCTFS unifies the Department of the Navy under one integrated personnel and pay system. This interim step is a cost effective integration of Navy and Marine Corps systems, until such time that the Department transitions to DIMHRS. The Department of the Navy remains committed to a transition to DIMHRS following the successful incorporations by Army and Air Force.

During your assessment of our report, please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, Inouye, and Murtha.

Sincerely,

Donald C. Winter

Enclosure:
As stated

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 12 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United State Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2004 National Defense Authorization Act stated, "…SECNAV shall carry out a demonstration project in which three Naval Aviation Depots are given the flexibility to promote by one grade level workers who are certified at the journey level as able to perform multiple trades." It also required a status report due to Congress NLT 15 January 2007. (PL 108-136 Sec. 338.)

The Naval Air Systems Command (NAVAIR) initiated the Multi-Trade proposal based on Business Process Review and LEAN initiatives. The intent was to combine a small number of highly specialized Federal Wage System trades where business processes provide opportunities to improve the timeliness of repairing aircraft.

PL 108-136 Sec. 338 required implementation using procedures established under 5 USC 4703, which would require the Department of Defense (DoD) concurrence and sponsorship of the initiative as a personnel demonstration project. When presented to DoD, the Department believed that flexibilities under the National Security Personnel System (NSPS) would achieve the same outcome as the proposed project in roughly the same timeframe. As we now know, NSPS implementation was delayed by the strategic pause and other events and coverage of FWS employees is now scheduled to begin no earlier than October 2007.

The Multi-Trade proposal, however, has been implemented, albeit in a modified format. Due to the slippage of NSPS, the Navy proceeded with the Multi-Trade program using awards equivalent to the amounts of one grade promotions. The Multi-Trade employee, after certification in two journey-level trades at the same grade level, receives an award of $2500, and every subsequent year thereafter based on certification from management that the employee spends a minimum of 25% of the time in each journey-level trade.

The Department of Defense is actively engaged in planning to extend NSPS to include FWS employees. The plan will incorporate a Multi-Trade approach. A key ingredient of the plan is to build a mechanism to provide compensation incentives for employees to qualify for, and perform, multi-trade work. Under NSPS, this compensation could take a number of forms, including payment of a differential in addition to the employee's salary, setting the employee's salary at a higher rate within the pay band, or assigning the employee's position to a higher pay band. The Department is in the process of identifying the scope and nature of multi-trade work that would warrant additional compensation in recognition of the broader skills and competencies required by such work. The final approach will be determined as the system design progresses through management reviews and discussions with labor unions during continuing collaboration.

While the multi-trade proposal has not been implemented as originally intended, it has been established and is being used in a viable fashion while the final NSPS integration is settled.

Please let me know if I can be of further assistance.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 12 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Fiscal Year 2004 National Defense Authorization Act stated, "…SECNAV shall carry out a demonstration project in which three Naval Aviation Depots are given the flexibility to promote by one grade level workers who are certified at the journey level as able to perform multiple trades." It also required a status report due to Congress NLT 15 January 2007. (PL 108-136 Sec. 338.)

The Naval Air Systems Command (NAVAIR) initiated the Multi-Trade proposal based on Business Process Review and LEAN initiatives. The intent was to combine a small number of highly specialized Federal Wage System trades where business processes provide opportunities to improve the timeliness of repairing aircraft.

PL 108-136 Sec. 338 required implementation using procedures established under 5 USC 4703, which would require the Department of Defense (DoD) concurrence and sponsorship of the initiative as a personnel demonstration project. When presented to DoD, the Department believed that flexibilities under the National Security Personnel System (NSPS) would achieve the same outcome as the proposed project in roughly the same timeframe. As we now know, NSPS implementation was delayed by the strategic pause and other events and coverage of FWS employees is now scheduled to begin no earlier than October 2007.

The Multi-Trade proposal, however, has been implemented, albeit in a modified format. Due to the slippage of NSPS, the Navy proceeded with the Multi-Trade program using awards equivalent to the amounts of one grade promotions. The Multi-Trade employee, after certification in two journey-level trades at the same grade level, receives an award of $2500, and every subsequent year thereafter based on certification from management that the employee spends a minimum of 25% of the time in each journey-level trade.

The Department of Defense is actively engaged in planning to extend NSPS to include FWS employees. The plan will incorporate a Multi-Trade approach. A key ingredient of the plan is to build a mechanism to provide compensation incentives for employees to qualify for, and perform, multi-trade work. Under NSPS, this compensation could take a number of forms, including payment of a differential in addition to the employee's salary, setting the employee's salary at a higher rate within the pay band, or assigning the employee's position to a higher pay band. The Department is in the process of identifying the scope and nature of multi-trade work that would warrant additional compensation in recognition of the broader skills and competencies required by such work. The final approach will be determined as the system design progresses through management reviews and discussions with labor unions during continuing collaboration.

While the multi-trade proposal has not been implemented as originally intended, it has been established and is being used in a viable fashion while the final NSPS integration is settled.

Please let me know if I can be of further assistance.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 19 2007

The Honorable David M. Walker
Comptroller General of the United States
Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Walker:

The Fiscal Year 2004 National Defense Authorization Act required the Department of the Navy to carry out a demonstration project under which three Naval Aviation Depots were to be given the flexibility to promote, by one grade, level workers who are certified at the journey level as able to perform multiple trades. (PL 108-136 Sec. 338)

Section 338 requires a status report on the project and a Government Accountability Office evaluation of the report to be provided to Congress. I've attached copies of the report for your review that were previously provided to Chairmen of the House and Senate Armed Services Committees.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Attachments:
As stated

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5730
Ser 07UM09BB7100
February 14, 2007

The Honorable Carl Levin
Chairman, Senate Armed Services Committee
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

As directed by Senate Appropriations Committee Report 109-292, this letter serves as a report to the congressional defense committees regarding the challenges faced in filling psychology post-doctoral training positions.

The post-doctoral training program at Tripler Army Medical Center (TAMC) is currently the only active Health Psychology training program within the Department of Defense. This program has been extremely successful in generating health psychologists who provide critical services to service members and military beneficiaries. For the first time, the Navy has two psychologists in the current class of 6 fellows.

In the past, Navy Medicine has either recruited licensed health psychologists or sent psychologists to civilian programs for training. Our intent is to continue sending Navy psychologists to the program at TAMC.

We are committed to continuing training, but face some significant challenges within the program. While the positions provide excellent opportunities for program participants, a number of factors, such as the high operational tempo during wartime, military-civilian pay disparities, and the training desires of individual psychologists, prevent us from fully utilizing all available training positions.

We continue to face challenges in the recruiting and retention of psychologists. Some of the initiatives we are examining to increase success in these areas include a loan repayment program for recruiting licensed providers, utilizing Navy-trained psychologists as recruiters at medical conventions, and specialty pay bonus options. Meanwhile, we continue to place as many psychologists in post-doctoral fellowships as manning levels allow.

Please let me know if I can be of any further assistance.

Sincerely,

J. M. MATECZUN
Acting

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5730
Ser 07UM09BB7102
February 14, 2007

The Honorable Ike Skelton
Chairman, House Armed Services Committee
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

As directed by Senate Appropriations Committee Report 109-292, this letter serves as a report to the congressional defense committees regarding the challenges faced in filling psychology post-doctoral training positions.

The post-doctoral training program at Tripler Army Medical Center (TAMC) is currently the only active Health Psychology training program within the Department of Defense. This program has been extremely successful in generating health psychologists who provide critical services to service members and military beneficiaries. For the first time, the Navy has two psychologists in the current class of 6 fellows.

In the past, Navy Medicine has either recruited licensed health psychologists or sent psychologists to civilian programs for training. Our intent is to continue sending Navy psychologists to the program at TAMC.

We are committed to continuing training, but face some significant challenges within the program. While the positions provide excellent opportunities for program participants, a number of factors, such as the high operational tempo during wartime, military-civilian pay disparities, and the training desires of individual psychologists, prevent us from fully utilizing all available training positions.

We continue to face challenges in the recruiting and retention of psychologists. Some of the initiatives we are examining to increase success in these areas include a loan repayment program for recruiting licensed providers, utilizing Navy-trained psychologists as recruiters at medical conventions, and specialty pay bonus options. Meanwhile, we continue to place as many psychologists in post-doctoral fellowships as manning levels allow.

Please let me know if I can be of any further assistance.

Sincerely,

J. M. MATECZUN
Acting

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5730
Ser 07UM09BB7101
February 14, 2007

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
Senate Appropriations Committee
Untied States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

As directed by Senate Appropriations Committee Report 109-292, this letter serves as a report to the congressional defense committees regarding the challenges faced in filling psychology post-doctoral training positions.

The post-doctoral training program at Tripler Army Medical Center (TAMC) is currently the only active Health Psychology training program within the Department of Defense. This program has been extremely successful in generating health psychologists who provide critical services to service members and military beneficiaries. For the first time, the Navy has two psychologists in the current class of 6 fellows.

In the past, Navy Medicine has either recruited licensed health psychologists or sent psychologists to civilian programs for training. Our intent is to continue sending Navy psychologists to the program at TAMC.

We are committed to continuing training, but face some significant challenges within the program. While the positions provide excellent opportunities for program participants, a number of factors, such as the high operational tempo during wartime, military-civilian pay disparities, and the training desires of individual psychologists, prevent us from fully utilizing all available training positions.

We continue to face challenges in the recruiting and retention of psychologists. Some of the initiatives we are examining to increase success in these areas include a loan repayment program for recruiting licensed providers, utilizing Navy-trained psychologists as recruiters at medical conventions, and specialty pay bonus options. Meanwhile, we continue to place as many psychologists in post-doctoral fellowships as manning levels allow.

Please let me know if I can be of any further assistance.

Sincerely,

J. M. MATECZUN
Acting

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO
5730
Ser 07UM09BB7103
February 14, 2007

The Honorable John Murtha
Chairman, Subcommittee on Defense
House Appropriations Committee
Untied States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

As directed by Senate Appropriations Committee Report 109-292, this letter serves as a report to the congressional defense committees regarding the challenges faced in filling psychology post-doctoral training positions.

The post-doctoral training program at Tripler Army Medical Center (TAMC) is currently the only active Health Psychology training program within the Department of Defense. This program has been extremely successful in generating health psychologists who provide critical services to service members and military beneficiaries. For the first time, the Navy has two psychologists in the current class of 6 fellows.

In the past, Navy Medicine has either recruited licensed health psychologists or sent psychologists to civilian programs for training. Our intent is to continue sending Navy psychologists to the program at TAMC.

We are committed to continuing training, but face some significant challenges within the program. While the positions provide excellent opportunities for program participants, a number of factors, such as the high operational tempo during wartime, military-civilian pay disparities, and the training desires of individual psychologists, prevent us from fully utilizing all available training positions.

We continue to face challenges in the recruiting and retention of psychologists. Some of the initiatives we are examining to increase success in these areas include a loan repayment program for recruiting licensed providers, utilizing Navy-trained psychologists as recruiters at medical conventions, and specialty pay bonus options. Meanwhile, we continue to place as many psychologists in post-doctoral fellowships as manning levels allow.

Please let me know if I can be of any further assistance.

Sincerely,

J. M. MATECZUN
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR - 9 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163, enclosed is the Navy "Report to Congress on Rationale and Plans of the Navy to Provide Enlisted Members an Opportunity to Obtain Graduate Degrees." I am responding on behalf of the Secretary of the Navy.

The report confirms Navy's need for a flexible approach to development of 21st century leaders who are adaptable to new circumstances and have the requisite knowledge and skills to succeed in an ever-changing, multi-mission environment. The Navy plans to initiate a number of Navy relevant graduate degree opportunities to enlisted members, the majority of which are through off-duty study, pending identification of additional educational needs. These new and future education requirements will be systematically assessed as part of our evolving personnel strategies.

As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Skelton.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable John McCain
Ranking Minority Member

REPORT TO CONGRESS

ON

RATIONALE AND PLANS OF THE NAVY TO PROVIDE ENLISTED MEMBERS AN OPPORTUNITY TO OBTAIN GRADUATE DEGREES

Prepared by:

Deputy Chief of Naval Operations for
Manpower, Personnel, Training and Education
Washington, DC

March 2007

Report Requirement

Subsection 526(c) of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163, directed the following:

"The Secretary of the Navy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the plans, if any, of the Secretary, and the rationale for those plans, for a program to provide enlisted members of the Navy with opportunities to pursue graduate degree programs either through Navy schools or paid for by the Navy in return for an additional service obligation." Appendix A provides the full text of the report requirement, including specific focus areas to be addressed.

Subsection 543(d) of the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, directed the following:

"The report required by subsection(c) of 526 of the National Defense Authorization Act for Fiscal Year 2006 (Public Law 109-163: 119 Stat. 3246), relating to the rationale and plans of the Navy to provide enlisted members an opportunity to obtain graduate degrees, shall be submitted, in accordance with that subsection, not later than March 30, 2007."

Background

The Navy is constantly adapting its forces and capabilities to respond to a full range of strategic challenges. We are tackling new mission sets needed to confront and influence the highly dynamic security environment of the 21st century while maintaining traditional naval capabilities integral to the conduct of conventional campaigns. A combination of changing mission sets, the changing nature of work done by enlisted Sailors, the pace of change itself, and the attraction of better educated individuals into the enlisted force requires flexibility in the development of enlisted Sailors.

Consistent with efforts to eliminate barriers that preclude the capability and flexibility to develop adaptable forces, the Navy had sought discretionary statutory authority for use of existing programs at Naval Postgraduate School (NPS) for instruction of enlisted Sailors as requirements dictate. As part of this process, Navy projected the types of NPS degree and non-degree programs that could be relevant to the development of enlisted Sailors, but noted the absence of any specific requirements at that time.

We value the capability we now have to use NPS for education of enlisted Sailors even though current requirements for enlisted graduate level education from any source are few and general in nature. As part of its overall personnel strategy, the Navy will continue to evaluate education needs. We plan to continue to provide a small number of

general graduate level opportunities for selected senior enlisted Sailors pending identification of more specific needs.

Philosophy and Objectives

The underlying philosophy and objectives of providing degree and non-degree graduate level opportunities for enlisted Sailors are part of a larger evolving strategy to broaden the professional and intellectual horizons of Sailors throughout their careers to better prepare them to operate tomorrow's fleet, and assume key naval and joint leadership roles.

Integration of Graduate Degrees Into Enlisted Career Development

Degree and non-degree graduate level education for enlisted Sailors is part of a career-long continuum of education opportunities for officer and enlisted Sailors. The Navy introduced its Professional Military Education (PME) Continuum in November 2004 to provide a comprehensive approach to integration of Advanced Education (post-secondary education), Navy-specific PME, Joint PME, and leadership development. The continuum is evolving to enable targeted learning opportunities sequenced to meet growing and changing roles throughout a career with emphasis on a solid technical and operational foundation early in a career, and management and executive level skills later in the career.

Within the PME continuum, graduate level opportunities for selected senior enlisted Sailors are expected to center on applying advanced concepts in technical fields, building critical and strategic thinking skills, understanding best business and management practices, and fostering cultural understanding and regional knowledge. The academic foundation for such opportunities would primarily come from Navy facilitation of academic credit for military training and experience, and Navy sponsored off-duty education programs.

Requirements for Associate and Baccalaureate Degree Programs

Education conveys general bodies of knowledge; enhances basic skills; and fosters breadth of view, diverse perspectives, critical analysis and thinking, abstract reasoning, innovation and comfort with ambiguity – all of which are fundamental in the development of 21st century leaders. We are reviewing policy established in August 2005, that would require an associates degree for advancement to E-8 starting with the Fiscal Year 2011 Advancement Selection Board. While there are no specific requirements for baccalaureate degrees, we value the effects of education in development of leaders. Therefore, we have facilitated and encouraged education attainment through several programs:

- The Navy College Program, NCP, provides easy access to academic counseling and information, tuition assistance, academic testing programs, and education programs regardless of a Sailor's duty station. NCP Distance Learning Partnerships with civilian academic institutions provide paths for rating relevant degrees that capitalize on academic credit for existing military training and experience. The NCP for Afloat College Education (NCPACE) provides college courses tuition-free to Sailors onboard ships and in remote locations.

- The Advanced Education Voucher (AEV) Program provides selected senior enlisted Sailors financial assistance to complete Navy relevant baccalaureate degrees during off-duty hours. Degree programs are provided by civilian institutions in traditional classroom settings or through distance learning. Twenty Sailors are currently pursuing baccalaureate degrees through this program. A selection board sponsored by the Master Chief Petty Officer of the Navy will convene in March 2007 to consider up to 25 additional candidates for baccalaureate degree completion in select areas of study including: selected strategic foreign languages, systems engineering and analysis, civil engineering, engineering propulsion systems, leadership and management, information technology and electrical engineering technology.

Meeting Academic Prerequisite for Graduate Level Opportunities

Approximately 10,400 enlisted Sailors have baccalaureate degrees documented in their personnel records. This number continues to trend upward as we emphasize the importance of education in career development. This significant number, in combination with the focused nature of NCP Distance Learning Partnerships and AEV program areas of study, enables a sufficient pool of academically qualified candidates to participate in current graduate level opportunities.

Enlisted Career Fields Requiring Graduate Degrees

The Navy has not yet identified any specific enlisted career fields requiring a graduate degree. The focus has been on identification of competencies required by senior enlisted leaders related to the knowledge, skills and abilities necessary for a broad range of responsibilities as well as those needed for specific functional responsibilities. We envision education opportunities would be directed at enhancing performance in selected assignments.

Education Execution Concept

The Navy's current approach to graduate degrees for enlisted Sailors is focused on enhancing knowledge of advanced concepts in technical fields, building critical and

strategic thinking skills, understanding best business and management practices, and fostering cultural understanding and regional knowledge. Current graduate degree opportunities are as follows:

- The aforementioned AEV Program not only provides financial assistance for baccalaureate degree completion, but also for completion of Navy relevant masters' degrees. Selected senior enlisted Sailors pursue masters' degrees provided by civilian institutions in traditional classroom settings or through distance learning during off-duty hours. Eleven senior enlisted Sailors are currently pursuing masters' degrees through this program. A selection board sponsored by the Master Chief Petty Officer of the Navy will convene in March 2007 to consider additional candidates in select areas of study including: Emergency and Disaster Management, Human Resources, Project Management, Engineering and Technology, Homeland Defense and Security, Business Administration, and Leadership and Management.

- The Master Chief Petty Officer of the Navy may select up to four academically qualified Command Master Chiefs per year for enrollment in the Naval War College (NWC) resident senior level course. While the purpose of the program is development of skilled joint leaders and strategically minded thinkers, it also results in award of a Master of Arts Degree in National Security and Strategic Studies. Selected Command Master Chiefs may also participate in NWC non-resident programs through which graduates may earn 12 or 21 semester hours of graduate credit depending upon the specific program.

- NPS offers several master's degree programs through distance learning. While Navy officers have priority, academically qualified enlisted Sailors may participate on a space available basis. Two enlisted Sailors are currently enrolled in NPS distance learning master's degree programs.

- Enlisted Sailors assigned to the permanent staff at NPS or nearby commands may participate in NPS masters' degree programs as duties allow. We have no Sailors enrolled in graduate degree programs under this provision.

- NCP provides access to civilian off-duty education opportunities including graduate programs.

Additional graduate education opportunities will be requirements driven. Requirements will guide the discipline, type (i.e. degree, certificate, seminar, etc.), source (NPS, Air Force Institute of Technology (AFIT), or civilian institutions) and delivery format (resident, distance learning or a combination thereof). As is currently done with AEV and NWC opportunities, we would expect to use a selection board process to identify best qualified education candidates.

Utilization of Enlisted Sailors Upon Award of a Graduate Degree

With the exception of NCP, enlisted Sailors participating in Navy-sponsored graduate degree programs must agree to remain on active duty for a prescribed period. The general nature of current limited opportunities provides executive level skills with broad applicability to a variety of assignments. Our emphasis on requirements-driven education and implementation should improve linkage to specific types of assignments in the future.

APPENDIX A

Subsection 526(c), National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163

Report on Rationale and Plans of the Navy to Provide Enlisted Members an Opportunity to Obtain Graduate Degrees- The Secretary of the Navy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the plans, if any, of the Secretary, and the rationale for those plans, for a program to provide enlisted members of the Navy with opportunities to pursue graduate degree programs either through Navy schools or paid for by the Navy in return for an additional service obligation. The report shall include the following:

(1) The underlying philosophy and objectives supporting a decision to provide opportunities for graduate degrees to enlisted members of the Navy.

(2) An overall description of how the award of a graduate degree to an enlisted member would fit in an integrated, progressive, coordinated, and systematic way into the goals and requirements of the Navy for enlisted career development and for professional education, together with a discussion of a wider requirement, if any, for programs for the award of associate and baccalaureate degrees to enlisted members, particularly in the career fields under consideration for the pilot program referred to in subsection (d)[1].

(3) A discussion of the scope and details of the plan to ensure that Navy enlisted members have the requisite academic baccalaureate degrees as a prerequisite for undertaking graduate-level work.

(4) Identification of the specific enlisted career fields for which the Secretary has determined that a graduate degree should be a requirement, as well as the rationale for that determination.

(5) A description of the concept of the Secretary for the process and mechanism of providing graduate degrees to enlisted members, including, at a minimum, the Secretary's plan for whether the degree programs would be provided through civilian or military degree-granting institutions and whether through in-resident or distance learning or some combination thereof.

(6) A description of the plan to ensure proper and effective utilization of enlisted members following the award of a graduate degree.

---

[1] Subsection 543(e) of the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, repealed the requirement for a report on a pilot program referred to in subsection 526(d) of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350 1000

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163, enclosed is the Navy "Report to Congress on Rationale and Plans of the Navy to Provide Enlisted Members an Opportunity to Obtain Graduate Degrees." I am responding on behalf of the Secretary of the Navy.

The report confirms Navy's need for a flexible approach to development of 21st century leaders who are adaptable to new circumstances and have the requisite knowledge and skills to succeed in an ever-changing, multi-mission environment. The Navy plans to initiate number of Navy relevant graduate degree opportunities to enlisted members, the majority of which are through off-duty study, pending identification of additional educational needs. These new and future education requirements will be systematically assessed as part of our evolving personnel strategies.

As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Levin.

Sincerely,

VR,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure:

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

REPORT TO CONGRESS

ON

RATIONALE AND PLANS OF THE NAVY TO PROVIDE ENLISTED MEMBERS AN OPPORTUNITY TO OBTAIN GRADUATE DEGREES

Prepared by:

Deputy Chief of Naval Operations for
Manpower, Personnel, Training and Education
Washington, DC

March 2007

Report Requirement

Subsection 526(c) of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163, directed the following:

"The Secretary of the Navy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the plans, if any, of the Secretary, and the rationale for those plans, for a program to provide enlisted members of the Navy with opportunities to pursue graduate degree programs either through Navy schools or paid for by the Navy in return for an additional service obligation." Appendix A provides the full text of the report requirement, including specific focus areas to be addressed.

Subsection 543(d) of the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, directed the following:

"The report required by subsection(c) of 526 of the National Defense Authorization Act for Fiscal Year 2006 (Public Law 109-163: 119 Stat. 3246), relating to the rationale and plans of the Navy to provide enlisted members an opportunity to obtain graduate degrees, shall be submitted, in accordance with that subsection, not later than March 30, 2007."

Background

The Navy is constantly adapting its forces and capabilities to respond to a full range of strategic challenges. We are tackling new mission sets needed to confront and influence the highly dynamic security environment of the 21st century while maintaining traditional naval capabilities integral to the conduct of conventional campaigns. A combination of changing mission sets, the changing nature of work done by enlisted Sailors, the pace of change itself, and the attraction of better educated individuals into the enlisted force requires flexibility in the development of enlisted Sailors.

Consistent with efforts to eliminate barriers that preclude the capability and flexibility to develop adaptable forces, the Navy had sought discretionary statutory authority for use of existing programs at Naval Postgraduate School (NPS) for instruction of enlisted Sailors as requirements dictate. As part of this process, Navy projected the types of NPS degree and non-degree programs that could be relevant to the development of enlisted Sailors, but noted the absence of any specific requirements at that time.

We value the capability we now have to use NPS for education of enlisted Sailors even though current requirements for enlisted graduate level education from any source are few and general in nature. As part of its overall personnel strategy, the Navy will continue to evaluate education needs. We plan to continue to provide a small number of

general graduate level opportunities for selected senior enlisted Sailors pending identification of more specific needs.

Philosophy and Objectives

The underlying philosophy and objectives of providing degree and non-degree graduate level opportunities for enlisted Sailors are part of a larger evolving strategy to broaden the professional and intellectual horizons of Sailors throughout their careers to better prepare them to operate tomorrow's fleet, and assume key naval and joint leadership roles.

Integration of Graduate Degrees Into Enlisted Career Development

Degree and non-degree graduate level education for enlisted Sailors is part of a career-long continuum of education opportunities for officer and enlisted Sailors. The Navy introduced its Professional Military Education (PME) Continuum in November 2004 to provide a comprehensive approach to integration of Advanced Education (post-secondary education), Navy-specific PME, Joint PME, and leadership development. The continuum is evolving to enable targeted learning opportunities sequenced to meet growing and changing roles throughout a career with emphasis on a solid technical and operational foundation early in a career, and management and executive level skills later in the career.

Within the PME continuum, graduate level opportunities for selected senior enlisted Sailors are expected to center on applying advanced concepts in technical fields, building critical and strategic thinking skills, understanding best business and management practices, and fostering cultural understanding and regional knowledge. The academic foundation for such opportunities would primarily come from Navy facilitation of academic credit for military training and experience, and Navy sponsored off-duty education programs.

Requirements for Associate and Baccalaureate Degree Programs

Education conveys general bodies of knowledge; enhances basic skills; and fosters breadth of view, diverse perspectives, critical analysis and thinking, abstract reasoning, innovation and comfort with ambiguity – all of which are fundamental in the development of 21st century leaders. We are reviewing policy established in August 2005, that would require an associates degree for advancement to E-8 starting with the Fiscal Year 2011 Advancement Selection Board. While there are no specific requirements for baccalaureate degrees, we value the effects of education in development of leaders. Therefore, we have facilitated and encouraged education attainment through several programs:

- The Navy College Program, NCP, provides easy access to academic counseling and information, tuition assistance, academic testing programs, and education programs regardless of a Sailor's duty station. NCP Distance Learning Partnerships with civilian academic institutions provide paths for rating relevant degrees that capitalize on academic credit for existing military training and experience. The NCP for Afloat College Education (NCPACE) provides college courses tuition-free to Sailors onboard ships and in remote locations.

- The Advanced Education Voucher (AEV) Program provides selected senior enlisted Sailors financial assistance to complete Navy relevant baccalaureate degrees during off-duty hours. Degree programs are provided by civilian institutions in traditional classroom settings or through distance learning. Twenty Sailors are currently pursuing baccalaureate degrees through this program. A selection board sponsored by the Master Chief Petty Officer of the Navy will convene in March 2007 to consider up to 25 additional candidates for baccalaureate degree completion in select areas of study including: selected strategic foreign languages, systems engineering and analysis, civil engineering, engineering propulsion systems, leadership and management, information technology and electrical engineering technology.

Meeting Academic Prerequisite for Graduate Level Opportunities

Approximately 10,400 enlisted Sailors have baccalaureate degrees documented in their personnel records. This number continues to trend upward as we emphasize the importance of education in career development. This significant number, in combination with the focused nature of NCP Distance Learning Partnerships and AEV program areas of study, enables a sufficient pool of academically qualified candidates to participate in current graduate level opportunities.

Enlisted Career Fields Requiring Graduate Degrees

The Navy has not yet identified any specific enlisted career fields requiring a graduate degree. The focus has been on identification of competencies required by senior enlisted leaders related to the knowledge, skills and abilities necessary for a broad range of responsibilities as well as those needed for specific functional responsibilities. We envision education opportunities would be directed at enhancing performance in selected assignments.

Education Execution Concept

The Navy's current approach to graduate degrees for enlisted Sailors is focused on enhancing knowledge of advanced concepts in technical fields, building critical and

strategic thinking skills, understanding best business and management practices, and fostering cultural understanding and regional knowledge. Current graduate degree opportunities are as follows:

- The aforementioned AEV Program not only provides financial assistance for baccalaureate degree completion, but also for completion of Navy relevant masters' degrees. Selected senior enlisted Sailors pursue masters' degrees provided by civilian institutions in traditional classroom settings or through distance learning during off-duty hours. Eleven senior enlisted Sailors are currently pursuing masters' degrees through this program. A selection board sponsored by the Master Chief Petty Officer of the Navy will convene in March 2007 to consider additional candidates in select areas of study including: Emergency and Disaster Management, Human Resources, Project Management, Engineering and Technology, Homeland Defense and Security, Business Administration, and Leadership and Management.

- The Master Chief Petty Officer of the Navy may select up to four academically qualified Command Master Chiefs per year for enrollment in the Naval War College (NWC) resident senior level course. While the purpose of the program is development of skilled joint leaders and strategically minded thinkers, it also results in award of a Master of Arts Degree in National Security and Strategic Studies. Selected Command Master Chiefs may also participate in NWC non-resident programs through which graduates may earn 12 or 21 semester hours of graduate credit depending upon the specific program.

- NPS offers several master's degree programs through distance learning. While Navy officers have priority, academically qualified enlisted Sailors may participate on a space available basis. Two enlisted Sailors are currently enrolled in NPS distance learning master's degree programs.

- Enlisted Sailors assigned to the permanent staff at NPS or nearby commands may participate in NPS masters' degree programs as duties allow. We have no Sailors enrolled in graduate degree programs under this provision.

- NCP provides access to civilian off-duty education opportunities including graduate programs.

Additional graduate education opportunities will be requirements driven. Requirements will guide the discipline, type (i.e. degree, certificate, seminar, etc.), source (NPS, Air Force Institute of Technology (AFIT), or civilian institutions) and delivery format (resident, distance learning or a combination thereof). As is currently done with AEV and NWC opportunities, we would expect to use a selection board process to identify best qualified education candidates.

Utilization of Enlisted Sailors Upon Award of a Graduate Degree

With the exception of NCP, enlisted Sailors participating in Navy-sponsored graduate degree programs must agree to remain on active duty for a prescribed period. The general nature of current limited opportunities provides executive level skills with broad applicability to a variety of assignments. Our emphasis on requirements-driven education and implementation should improve linkage to specific types of assignments in the future.

APPENDIX A

Subsection 526(c), National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163

Report on Rationale and Plans of the Navy to Provide Enlisted Members an Opportunity to Obtain Graduate Degrees- The Secretary of the Navy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the plans, if any, of the Secretary, and the rationale for those plans, for a program to provide enlisted members of the Navy with opportunities to pursue graduate degree programs either through Navy schools or paid for by the Navy in return for an additional service obligation. The report shall include the following:

(1) The underlying philosophy and objectives supporting a decision to provide opportunities for graduate degrees to enlisted members of the Navy.

(2) An overall description of how the award of a graduate degree to an enlisted member would fit in an integrated, progressive, coordinated, and systematic way into the goals and requirements of the Navy for enlisted career development and for professional education, together with a discussion of a wider requirement, if any, for programs for the award of associate and baccalaureate degrees to enlisted members, particularly in the career fields under consideration for the pilot program referred to in subsection (d)[1].

(3) A discussion of the scope and details of the plan to ensure that Navy enlisted members have the requisite academic baccalaureate degrees as a prerequisite for undertaking graduate-level work.

(4) Identification of the specific enlisted career fields for which the Secretary has determined that a graduate degree should be a requirement, as well as the rationale for that determination.

(5) A description of the concept of the Secretary for the process and mechanism of providing graduate degrees to enlisted members, including, at a minimum, the Secretary's plan for whether the degree programs would be provided through civilian or military degree-granting institutions and whether through in-resident or distance learning or some combination thereof.

(6) A description of the plan to ensure proper and effective utilization of enlisted members following the award of a graduate degree.

---

[1] Subsection 543(e) of the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, repealed the requirement for a report on a pilot program referred to in subsection 526(d) of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163.

COORDINATION PAGE

Command	Point of Contact	Phone	Date
CNP	VADM J. C. Harvey	(703) 614-1101	1 Mar 07
MCPON	MCPON Joe Campa	(703) 695-5592	30 Jan 07
N101	Ms. Erin Kerns	(703) 695-2897	29 Jan 07
N131	CAPT Jay Lisenby	(703) 693-2301	29 Jan 07
N1Z	Ms. Nancy Dolan	(703) 614-5781	26 Jan 07
NPS	CAPT Paul Jordanek Director of Programs	DSN 756-2291	25 Jan 07
NETC	VADM Kevin Moran	(850) 452-4810	24 Jan 07
MPT&E	FLTCM Michael McCalip	(703) 695-1715	23 Jan 07
N127	Ms. Marilyn Augustine	(703) 693-2334	22 Jan 07

JOINT REPORT TO CONGRESS

ON

USE OF THE NAVAL POSTGRADUATE SCHOOL

AND THE AIR FORCE INSTITUTE OF TECHNOLOGY

TO MEET REQUIREMENTS FOR ENLISTED GRADUATE DEGREES

Jointly prepared by:

United States Navy
Deputy Chief of Naval Operations for
Manpower, Personnel, Training and Education
Washington, DC

United States Marine Corps
Deputy Commandant for Manpower and Reserve Affairs
Washington, DC

United States Air Force
Deputy Chief of Staff for Manpower and Personnel
Washington, DC

March 2007

Report Requirement

Subsection 543(f) of the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, directed the following:

"Report on Use of NPS and AFIT- Not later than March 30, 2007, the Secretary of the Navy and the Secretary of the Air Force shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a joint report on the manner by which each Secretary intends to use the Naval Postgraduate School and the Air Force Institute of Technology during fiscal years 2008 through 2013 to meet the overall requirements of the Navy and Marine Corps and of the Air Force for enlisted members with graduate degrees. The report shall include the following:

(1) The numbers and occupational specialities of enlisted members that each Secretary plans to enroll as candidates for graduate degrees each year in each of the two schools.

(2) A description of the graduate degrees that those enlisted members will pursue at those schools.

(3) Other matters that the two Secretaries jointly consider to be useful for the committees to better understand the future role that the two schools will each have in meeting service requirements for enlisted members with graduate degrees."

NAVY

Currently, the Navy has no enlisted billets that require the incumbent to have a graduate degree. Consistent with our strategic imperatives, the Navy has no plans to send enlisted members to the Naval Postgraduate School or the Air Force Institute of Technology for graduate degrees until specific requirements are identified and validated. We are in the midst of important work to define the Navy workforce of the future through linking specific knowledge, skills and abilities to capabilities. This work is fundamental to enabling us to determine the types and levels of education required to develop competencies needed to deliver capabilities in a cost efficient manner.

As part of a larger evolving strategy to develop strategically-minded, critical thinkers who are better prepared to operate tomorrow's Fleet, and assume key naval and joint leadership roles, the Navy does provide some education opportunities for senior enlisted members. At the graduate level, five senior enlisted members per year are selected to complete masters' degrees through funded off-duty education at civilian academic institutions. Available areas of study in FY07 included: Disaster Management, Human Performance Improvement, Engineering and Technology, Systems Engineering and Analysis, Homeland Defense and Security, Leadership and Management, and Business Administration. Additionally, we select up to four academically qualified Command Master Chiefs per year for enrollment in the Naval War College (NWC) resident senior level course. The purpose of the program is development of skilled joint leaders and strategically-minded thinkers, but it also results in award of a Master of Arts Degree in National Security and Strategic Studies.

As part of our overall personnel strategy, the Navy will continue to evaluate and support education needed to develop the competencies, professional knowledge and critical thinking skills needed by 21st century leaders to meet the demands of fast-paced, multi-mission environments.

Marine Corps

Currently, the Marine Corps has no enlisted billets that require the incumbent to have a graduate degree. The requirement does exist for certain billets to be staffed with enlisted Marines who possess an undergraduate degree. These billets are filled through the Staff Noncommissioned Officer Degree Completion Program. The related disciplines are: Safety, Education, Psychology, Music and Accounting.

Although there are no current requirements for graduate degrees, there are some Occupational Fields that would benefit from additional education. Those fields include, but are not limited to Intelligence (PMOS 02xx), Signals Intelligence (PMOS 26xx), and Ground Electronics (28xx). Graduate degrees may also be beneficial to those assigned to high-level staffs such as Occupation Field sponsors. Marine Corps needs would dictate the support of any graduate degree opportunities.

In recent years, the Marine Corps has sent enlisted Marines with the Primary Military Occupational Specialty of Information

Assurance Technician (PMOS 0689) to the Air Force Institute of Technology (AFIT) for graduate degrees in Information Assurance. The assignment of these Marines to AFIT has been not designed to fulfill requirements of a specific billet. Rather, the intent has been to bolster the Information Assurance community within the Marine Corps through exposure to broadened instruction at AFIT. Upon graduation, these Marines have been assigned based upon existing occupational needs.

Air Force

The Air Force process to select enlisted personnel to obtain graduate degrees and then assign graduates to jobs that put their newly acquired education to work has developed since its inception in 2002 to a very effective one. Enlisted personnel are nominated through command channels and selected by a committee of Career Field Managers (CFMs). The CFM's selection puts the heaviest weight on the identification of a short list of appropriate post-graduation assignments. Firm assignments are finalized later. All personnel participating in this program must agree to an Active Duty Service Commitment of three years beyond graduation.

Forty-seven enlisted personnel have participated in this program. Nine are still early in their studies with projected graduation in March 2008. Ten will graduate in March 2007 and twenty-five are working for the Air Force. Three program graduates, all from the initial group in 2002, have left the Air Force. Twenty-four of the forty-seven participants represent the Communications-Computer Systems Operations, Communications-Electronics System Maintenance, and Aircraft Maintenance career fields.

Thirty-eight of the forty-seven participants are enrolled in four degree programs: Logistics Management, Computer Science, Information Systems Management, and Information Resource Management. Graduates' assignments include Senior Enemy Integrated Air Defense Systems Analyst; Functional Manager, Aircraft and Equipment Maintenance; Acquisition Logistics Manager (C-130E, H, and P & HC-130 H/N); Command Manager, Information Satellite Communication Systems; and C4 Computer Security Engineer.

The expanded eligibility for enlisted members to attend the Naval Postgraduate School (NPS) provides future options for the Air Force to enhance its mission capability in Joint Information

Operations; Homeland Defense and Security; National Security Affairs—Middle East, Africa, and South Asia; Special Operations and Irregular Warfare; and Meteorology. The Air Force has not yet identified any personnel to pursue degrees at NPS although several degree programs may be considered on a limited basis in the future. The need to program funding to support expanded NPS opportunities dictates that we carefully consider the priorities given to educational opportunities for all members. The Air Force will continue to send 10 enlisted members per year to these graduate programs.

DEPARTMENT OF THE AIR FORCE
Secretary of the Air Force
Washington, D. C. 20330-1670

DEPARTMENT OF THE NAVY
Secretary of the Navy
Washington, D.C. 20350-1000

April 17, 2007

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, page 33, jointly prepared Air Force, Marine Corps and Navy report on use of the Naval Postgraduate School (NPS) and the Air Force Institute of Technology (AFIT) to provide graduate degree opportunities to enlisted members is enclosed.

Each service has addressed its current approach to graduate degrees for enlisted members. Education is an important factor in enabling a resilient, adaptable force ready to meet the demands of a fast-paced, multi-mission environment. We will continue to evaluate education needs to enhance mission accomplishment.

Please let us know if we can be of further assistance. A similar letter has been sent to the Ranking Minority Member of your committee and to the Chairman and Ranking Minority Member of the other Congressional Armed Services Committee.

Sincerely,

Michael W. Wynne
Secretary of the Air Force

Donald C. Winter
Secretary of the Navy

Attachment:
Joint Report to Congress on Use of The Naval Postgraduate School and The Air Force Institute of Technology to Meet Requirements for Enlisted Graduate Degrees

DEPARTMENT OF THE AIR FORCE
Secretary of the Air Force
Washington, D. C. 20330-1670

DEPARTMENT OF THE NAVY
Secretary of the Navy
Washington, D.C. 20350-1000

April 17, 2007

The Honorable John McCain
Ranking Minority Member
Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Senator McCain:

As directed by the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, page 33, a jointly prepared Air Force, Marine Corps and Navy report on use of the Naval Postgraduate School (NPS) and the Air Force Institute of Technology (AFIT) to provide graduate degree opportunities to enlisted members is enclosed.

Each service has addressed its current approach to graduate degrees for enlisted members. Education is an important factor in enabling a resilient, adaptable force ready to meet the demands of a fast-paced, multi-mission environment. We will continue to evaluate education needs to enhance mission accomplishment.

Please let us know if we can be of further assistance. A similar letter has been sent to the Chairman of your committee and to the Chairman and Ranking Minority Member of the other Congressional Armed Services Committee.

Sincerely,

Michael W. Wynne
Secretary of the Air Force

Donald C. Winter
Secretary of the Navy

Attachment:
Joint Report to Congress on Use of The Naval Postgraduate School and The Air Force Institute of Technology to Meet Requirements for Enlisted Graduate Degrees

DEPARTMENT OF THE AIR FORCE
Secretary of the Air Force
Washington, D. C. 20330-1670

DEPARTMENT OF THE NAVY
Secretary of the Navy
Washington, D.C. 20350-1000

April 17, 2007

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035-6050

Dear Mr. Chairman:

As directed by the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, page 33, a jointly prepared Air Force, Marine Corps and Navy report on use of the Naval Postgraduate School (NPS) and the Air Force Institute of Technology (AFIT) to provide graduate degree opportunities to enlisted members is enclosed.

Each service has addressed its current approach to graduate degrees for enlisted members. We recognize education as an important factor in enabling a resilient, adaptable force ready to meet the demands of a fast-paced, multi-mission environment. We will continue to evaluate education needs to enhance mission accomplishment.

Please let us know if we can be of further assistance. A similar letter has been sent to the Ranking Minority Member of your committee and to the Chairman and Ranking Minority Member of the other Congressional Armed Services Committee.

Sincerely,

Michael W. Wynne
Secretary of the Air Force

Donald C. Winter
Secretary of the Navy

Attachment:
Joint Report to Congress on Use of The Naval Postgraduate School and The Air Force Institute of Technology to Meet Requirements for Enlisted Graduate Degrees

DEPARTMENT OF THE AIR FORCE
Secretary of the Air Force
Washington, D. C. 20330-1670

DEPARTMENT OF THE NAVY
Secretary of the Navy
Washington, D.C. 20350-1000

April 17, 2007

The Honorable Duncan Hunter
Ranking Minority Member
Committee on Armed Services
House of Representatives
Washington, DC 20510-6050

Dear Congressman Hunter

As directed by the John Warner National Defense Authorization Act for Fiscal Year 2007, Public Law 109-364, page 33, a jointly prepared Air Force, Marine Corps and Navy report on use of the Naval Postgraduate School (NPS) and the Air Force Institute of Technology (AFIT) to provide graduate degree opportunities to enlisted members is enclosed.

Each service has addressed its current approach to graduate degrees for enlisted members. We recognize education as an important factor in enabling a resilient, adaptable force ready to meet the demands of a fast-paced, multi-mission environment. We will continue to evaluate education needs to enhance mission accomplishment.

Please let us know if we can be of further assistance. A similar letter has been sent to the Chairman of your committee and to the Chairman and Ranking Minority Member of the other Congressional Armed Services Committee.

Sincerely,

Michael W. Wynne
Secretary of the Air Force

Donald C. Winter
Secretary of the Navy

Attachment:
Joint Report to Congress on Use of The Naval Postgraduate School and The Air Force Institute of Technology to Meet Requirements for Enlisted Graduate Degrees

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 15 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2006, a total of $762,713.24 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Janitorial at Beverly Collection, Halligan Hall, $1,796.64;
- Modify 3rd Company Wardroom, Bancroft Hall, $13,743.60;
- Columbarium Expansion Design work, $25,517.00; and
- Preble Hall Display Design Work, $721,656.00.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

BJ Penn

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

SEP 15 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2006, a total of $762,713.24 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Janitorial at Beverly Collection, Halligan Hall, $1,796.64;
- Modify 3rd Company Wardroom, Bancroft Hall, $13,743.60;
- Columbarium Expansion Design work, $25,517.00; and
- Preble Hall Display Design Work, $721,656.00.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

BJ Penn

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 15 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2006, a total of $762,713.24 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Janitorial at Beverly Collection, Halligan Hall, $1,796.64;
- Modify 3rd Company Wardroom, Bancroft Hall, $13,743.60;
- Columbarium Expansion Design work, $25,517.00; and
- Preble Hall Display Design Work, $721,656.00.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

BJ Penn

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 15 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2006, a total of $762,713.24 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Janitorial at Beverly Collection, Halligan Hall, $1,796.64;
- Modify 3rd Company Wardroom, Bancroft Hall, $13,743.60;
- Columbarium Expansion Design work, $25,517.00; and
- Preble Hall Display Design Work, $721,656.00.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

BJ Penn

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 16 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by House Armed Services Committee report 109-452, the enclosed report provides information on the Department of the Navy (DON) Personal Responsibility and Values: Education and Training (PREVENT) Program and the recommendation that the Secretary of the Navy increase funding for the PREVENT Program to ensure that additional Navy personnel have the opportunity to participate. The report also addresses the committee's recommendation that the Secretary extend the benefits of participation in the PREVENT program to enlisted personnel in the Marine Corps.

Presently, the Navy is developing a proposal that will establish a reliable and standardized funding line for the PREVENT program or an equivalent alternative, as well as recommendations on when and where the course should be delivered to best fit the Sailor's developmental processes. The Navy believes that the current cost per student can be improved and is working with the Fleet and Chief of Naval Personnel to develop the most effective solution.

The Marine Corps has a number of proven programs designed to positively enhance personal responsibility and counter alcohol and substance abuse, as described in the enclosed report. For this reason, the Marine Corps believes its current array of programs are effectively meeting the needs of its personnel and that extending PREVENT eligibility to Marines is not necessary.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 16 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by House Armed Services Committee report 109-452, the enclosed report provides information on the Department of the Navy (DON) Personal Responsibility and Values: Education and Training (PREVENT) Program and the recommendation that the Secretary of the Navy increase funding for the PREVENT Program to ensure that additional Navy personnel have the opportunity to participate. The report also addresses the committee's recommendation that the Secretary extend the benefits of participation in the PREVENT program to enlisted personnel in the Marine Corps.

Presently, the Navy is developing a proposal that will establish a reliable and standardized funding line for the PREVENT program or an equivalent alternative, as well as recommendations on when and where the course should be delivered to best fit the Sailor's developmental processes. The Navy believes that the current cost per student can be improved and is working with the Fleet and Chief of Naval Personnel to develop the most effective solution.

The Marine Corps has a number of proven programs designed to positively enhance personal responsibility and counter alcohol and substance abuse, as described in the enclosed report. For this reason, the Marine Corps believes its current array of programs are effectively meeting the needs of its personnel and that extending PREVENT eligibility to Marines is not necessary.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 16 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by House Armed Services Committee report 109-452, the enclosed report provides information on the Department of the Navy (DON) Personal Responsibility and Values: Education and Training (PREVENT) Program and the recommendation that the Secretary of the Navy increase funding for the PREVENT Program to ensure that additional Navy personnel have the opportunity to participate. The report also addresses the committee's recommendation that the Secretary extend the benefits of participation in the PREVENT program to enlisted personnel in the Marine Corps.

Presently, the Navy is developing a proposal that will establish a reliable and standardized funding line for the PREVENT program or an equivalent alternative, as well as recommendations on when and where the course should be delivered to best fit the Sailor's developmental processes. The Navy believes that the current cost per student can be improved and is working with the Fleet and Chief of Naval Personnel to develop the most effective solution.

The Marine Corps has a number of proven programs designed to positively enhance personal responsibility and counter alcohol and substance abuse, as described in the enclosed report. For this reason, the Marine Corps believes its current array of programs are effectively meeting the needs of its personnel and that extending PREVENT eligibility to Marines is not necessary.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 16 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by House Armed Services Committee report 109-452, the enclosed report provides information on the Department of the Navy (DON) Personal Responsibility and Values: Education and Training (PREVENT) Program and the recommendation that the Secretary of the Navy increase funding for the PREVENT Program to ensure that additional Navy personnel have the opportunity to participate. The report also addresses the committee's recommendation that the Secretary extend the benefits of participation in the PREVENT program to enlisted personnel in the Marine Corps.

Presently, the Navy is developing a proposal that will establish a reliable and standardized funding line for the PREVENT program or an equivalent alternative, as well as recommendations on when and where the course should be delivered to best fit the Sailor's developmental processes. The Navy believes that the current cost per student can be improved and is working with the Fleet and Chief of Naval Personnel to develop the most effective solution.

The Marine Corps has a number of proven programs designed to positively enhance personal responsibility and counter alcohol and substance abuse, as described in the enclosed report. For this reason, the Marine Corps believes its current array of programs are effectively meeting the needs of its personnel and that extending PREVENT eligibility to Marines is not necessary.

A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

Report to Congress on

Department of the Navy Personal Responsibility and Values: Education and Training Program

PREPARED BY:
Assistant Secretary of the Navy (Manpower and Reserve Affairs)
1000 Navy Pentagon, Room 4E615
Washington, DC 20350-1000

April 2007

Requirement

The House Armed Services Committee report 109-452 contained the following requirement with regards to the Department of the Navy Personal Responsibility and Values: Education and Training (PREVENT) Program:

"Given the positive outcomes this program has achieved in the lives of sailors and its contributions to readiness and mission performance, the committee urges the Secretary of the Navy to increase funding for this program to ensure that additional Navy personnel have the opportunity to participate. Additionally, the committee recommends that the Secretary extend the benefits of participation in the PREVENT program to enlisted personnel in the Marine Corps. Accordingly, the committee directs the Secretary of the Navy to study the feasibility of allocating additional funding to the PREVENT program and extending eligibility to Marine Corps personnel. The committee directs the Secretary to report his findings and recommendations by March 31, 2007, to the Senate Committee on Armed Services and the House Committee on Armed Services."

This report is submitted to answer this requirement.

Background

The Navy's PREVENT program was initiated in the mid-1970s as the Chief of Naval Operations' (CNO) first alcohol abuse prevention program. PREVENT has evolved into its current three-day course (24 course hours), delivered by contracted instruction at 16 administrative sites worldwide.

CNO policy, OPNAV Instruction 5350.4C, Subject: Drug and Alcohol Abuse Prevention and Control, states that all Navy members in the target age group (18-25 years old) should attend PREVENT or complete "Skills for Life" within four years of accession, and that the integration of PREVENT contributes toward command prevention program requirements. "Skills for Life" is a computer-based training program suggested as an alternative to the PREVENT program. However, funding constraints restrict delivery of PREVENT to enlisted personnel only and requires commands to determine who would most benefit from attending PREVENT.

As the PREVENT program has matured, topics in addition to alcohol abuse prevention have been woven into the course content in order to demonstrate, in part, the effect that alcohol abuse has on life skills and capabilities. A core learning feature is the development of decision-making and alcohol refusal skills. Currently, PREVENT course content includes:

- Alcohol misuse and drug and tobacco use prevention
- Interpersonal responsibility (including communication, sexual behavior, workplace equal employment opportunity, and violence)
- Personal finances
- Health and readiness (including mental health, stress management and suicide prevention; physical health and responsibility, sexual health, sleep, fitness, and nutrition).

Presently, the Pacific Institute for Research and Evaluation is the contractor for the PREVENT program.

Program Throughput and Cost

Since its inception, PREVENT has served over 760,000 Sailors. Within the Navy, the PREVENT Program is funded as a Center for Personal and Professional Development (CPPD) program. The chart below provides data on the number of participants and program costs for the previous four fiscal years.

Fiscal Year	Recruit class graduates	Number of PREVENT graduates	Training Gap *	% of eligibles not receiving training	% of eligibles trained	CPPD budget line	DDR Plus-ups **	Other Plus-ups	FY total funding available	average cost per student	Additional funding required to meet gap
FY03	34299	28,847	5,452	15.90%	84.10%	$1,924,451	$1,017,430	$362,196	$3,304,077	$115	$624,461
FY04	38420	26,438	11,982	31.19%	68.81%	$1,494,000	$1,016,000	$563,635	$3,073,635	$116	$1,393,006
FY05	34164	23,193	10,971	32.11%	67.89%	$1,567,326	$1,034,491	$0	$2,601,817	$112	$1,230,739
FY06	35215	20,724	14,491	41.15%	58.85%	$1,440,000	$1,047,224	$0	$2,487,224	$120	$1,739,160

* "Training Gap" is the difference between the assumed requirement (all graduates of recruit training who enter the fleet are eligible Sailors within their first enlistment) and those who graduate from a PREVENT class.

** "DDR" refers to Drug Demand Reduction Program. Funds have historically been moved to the PREVENT contract holder to augment availability of classes; however this is a non-budget item and cannot be assumed to be available every year. Navy Education and Training Command has provided between $984,000 and $802,000 for classes primarily at schoolhouse locations; U.S. Naval Forces Europe (NAVEUR) has provided between $232,000 and $115 for classes in their Area of Responsibility.

Funding and Training Gaps

Historically, the training gap resulting from inadequate funding of PREVENT has ranged from 16 percent of the recruit pool to last year's 41 percent of the recruit pool. With no further cuts to contracting budgets, CPPD would require an additional $1.739 million in Fiscal Year (FY) 2007 to meet the requirement to train all Sailors who are in their first enlistment. As the recruit plan increases in the out years (additional 2,000 recruits in FY 2007-2009), the requirement will grow by approximately $240,000 annually. The FY 2008 funding requirement to train all Sailors who are in their first enlistment will be $4.62 million. However, CPPD anticipates a loss of $325,000 in PREVENT contract funding due to FY 2008 budget reductions.

In past years, DDR funds have been made available for additional classes as the content of PREVENT is heavily oriented towards providing preventive education for the development of refusal skills and appropriate decision-making. However, DDR funding is uncertain due to the fact that major commands in receipt of DDR funding decide annually where they can best utilize the funding.

Extending PREVENT Eligibility to Marine Corps Personnel

The Marine Corps has a number of proven programs and venues designed to positively enhance personal responsibility and counter alcohol and substance abuse, as described below. For this reason, the Marine Corps believes its current array of programs are effectively meeting the needs of its personnel and that extending PREVENT eligibility to Marines is not necessary at this time.

The Marine Corps educates its senior enlisted personnel through substance abuse prevention training conferences and installation summits. These forums provide information for leadership to increase its ability to train subordinates on personal reliability and responsibility. The Marine Corps also uses the science driven, web-based "Skills for Life" training program to positively enhance personal responsibility for all Marines. Other initiatives that contribute to the enhancement of personal responsibility include partnerships with health promotion and recreation personnel.

The Battalion Alcohol Skills Intervention Curriculum (BASIC) is a science-based program specifically designed for the Marine Corps. The curriculum, based on the Brief Alcohol Screening and Intervention of College Students program produced by the University of Washington, provides Marines with information on how alcohol can negatively impact individual behavior and teaches them the importance of drinking alcohol responsibly.

The Sexual Assault Prevention and Response (SAPR) program, established by Marine Corps Order 1752.5 in September 2004 as a command oriented training activity, focuses on all aspects of the command's sexual assault awareness, prevention, and victim support efforts. SAPR training is included as part of the curriculum at all officer and enlisted entry level training venues (e.g., Marine Corps Basic Training, the Basic School). Additionally, the program is taught at the Staff Non-Commissioned Officer Advanced Academy and the Commander's Course.

The Marine Corps Personal Financial Management Program (PFMP) is designed to prevent potential personal problems that can cost valuable time and money that may detract from mission readiness. PFMP specialists at installation-level Marine and Family Services offices, and Command Financial Specialists within units, help Marines develop sound decision-making skills in managing their personal finances. PFMP specialists address how personal and relational issues, such as marriage, divorce, children, substance abuse, etc., may affect Marines' personal finances.

The Mentors-In-Violence Prevention (MVP) program, developed at Northeastern University, was adapted to the Marine Corps culture and has been in use since 1997. The program focuses attention on men taking responsibility for preventing violence against women and interceding when necessary. The interactive MVP training course is taught by in-house trainers to senior Marines, and prepares the trainees to then train their Marines.

Semper Fit Health and Readiness offers nine interactive health promotion courses to promote optimal health and enhance mission readiness for all Marines. Subjects include fitness, nutrition, injury prevention, hypertension, tobacco cessation, sexual health, suicide awareness and prevention, alcohol and substance abuse prevention, and stress management. Marine Corps Order P1700.29 requires annual training in tobacco cessation, sexual health, suicide prevention, and alcohol and substance abuse prevention. Semper Fit has also collaborated with the Marine Corps Institute to develop two non-resident courses (a basic and advanced course) on Fitness, Nutrition and Injury Prevention. The courses are designed to prevent injuries and enhance performance by providing the necessary knowledge to ensure expertise at every level on strength development and physical conditioning.

Obstacles Other Than Funding

PREVENT is a course designed to function within the goals of a larger, command-centered alcohol and drug prevention program. Command Drug and Alcohol Program Advisors are critical to ensuring that once students return from the PREVENT course, attention is given, at the command level, to personal action plans and the general state of command climate to support success at the individual level. While the course is

designed around a "threat minimization framework," it requires a supportive command culture in order for classroom learning to be translated into individual behavioral change.

Conclusion and Recommendations

Despite a thorough Human Performance study in 2005, CPPD has no definitive evidence that PREVENT has an impact on alcohol or drug refusal behaviors. This is due, in part, to the reality that a three-day class, by itself, cannot change behavior, and that the environment to which Sailors return has enormous impact on their ability to carry out their personal action plans. CPPD believes that a course of this kind, as a part of a character development continuum – addressing basic behavioral responsibilities and Navy core values – is vital to the early training of Sailors. CPPD believes that the cost per student could be improved, and is currently working with the Fleet and Chief of Naval Personnel (N135) to develop alternative solutions. A proposal is under development and will include a reliable and standardized funding line as well as a recommendation of when and where a course should be delivered to take best advantage of the Sailor's developmental processes.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Fiscal Year 2007 National Defense Authorization Act directed that a report on Navy's Riverine Squadrons be submitted with the President's Budget for Fiscal Year 2008.

The United States Navy has a long, episodic history with riverine operations. Navy's riverine capability reached a zenith during the Vietnam conflict where the number of specialized riverine craft exceeded 500. After the Vietnam conflict, residual riverine capabilities were placed in the Naval Reserve Force and eventually were folded into the Navy component of the United States Special Operations Command, the Naval Special Warfare Command. The Marine Corps established a limited riverine capability in the early 1990s but divestiture of that capability began in September 2005 with the disestablishment of the Small Craft Company. However, the Nation's current operations in the Global War on Terrorism, the stress on the ground forces, and the overall nature of Irregular Warfare have resulted in the requirement for Navy to re-establish an operational riverine capability.

The Department of the Navy's plan for a Riverine Force under Navy Expeditionary Combat Command will provide a timely, effective, and efficient capability in the prosecution of Irregular Warfare.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Fiscal Year 2007 National Defense Authorization Act directed that a report on Navy's Riverine Squadrons be submitted with the President's Budget for Fiscal Year 2008.

United States Navy has a long, episodic history with riverine operations. Navy's riverine capability reached a zenith during the Vietnam conflict where the number of specialized riverine craft exceeded 500. After the Vietnam conflict, residual riverine capabilities were placed in the Naval Reserve Force and eventually were folded into the Navy component of the United States Special Operations Command, the Naval Special Warfare Command. The Marine Corps established a limited riverine capability in the early 1990s but divestiture of that capability began in September 2005 with the disestablishment of the Small Craft Company. However, the Nation's current operations in the Global War on Terrorism, the stress on the ground forces, and the overall nature of Irregular Warfare have resulted in the requirement for Navy to re-establish an operational riverine capability.

The Department of the Navy's plan for a Riverine Force under Navy Expeditionary Combat Command will provide a timely, effective, and efficient capability in the prosecution of Irregular Warfare.

A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2007 National Defense Authorization Act directed that a report on Navy's Riverine Squadrons be submitted with the President's Budget for Fiscal Year 2008. That report is enclosed.

United States Navy has a long, episodic history with riverine operations. Navy's riverine capability reached a zenith during the Vietnam conflict where the number of specialized riverine craft exceeded 500. After the Vietnam conflict, residual riverine capabilities were placed in the Naval Reserve Force and eventually were folded into the Navy component of the United States Special Operations Command, the Naval Special Warfare Command. The Marine Corps established a limited riverine capability in the early 1990s but divestiture of that capability began in September 2005 with the disestablishment of the Small Craft Company. However, the Nation's current operations in the Global War on Terrorism, the stress on the ground forces, and the overall nature of Irregular Warfare have resulted in the requirement for Navy to re-establish an operational riverine capability.

The Department of the Navy's plan for a Riverine Force under Navy Expeditionary Combat Command will provide a timely, effective, and efficient capability in the prosecution of Irregular Warfare.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 6, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Fiscal Year 2007 National Defense Authorization Act directed that a report on Navy's Riverine Squadrons be submitted with the President's Budget for Fiscal Year 2008. That report is enclosed.

United States Navy has a long, episodic history with riverine operations. Navy's riverine capability reached a zenith during the Vietnam conflict where the number of specialized riverine craft exceeded 500. After the Vietnam conflict, residual riverine capabilities were placed in the Naval Reserve Force and eventually were folded into the Navy component of the United States Special Operations Command, the Naval Special Warfare Command. The Marine Corps established a limited riverine capability in the early 1990s but divestiture of that capability began in September 2005 with the disestablishment of the Small Craft Company. However, the Nation's current operations in the Global War on Terrorism, the stress on the ground forces, and the overall nature of Irregular Warfare have resulted in the requirement for Navy to re-establish an operational riverine capability.

The Department of the Navy's plan for a Riverine Force under Navy Expeditionary Combat Command will provide a timely, effective, and efficient capability in the prosecution of Irregular Warfare.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Ted Stevens
Ranking Minority Member

SSIC

DEPARTMENT OF THE NAVY
COMMANDER
NAVY EXPEDITIONARY COMBAT COMMAND
2200 GATOR BLVD
NORFOLK, VA 23521-3024

IN REPLY REFER TO
3501
Ser N8/506
14 Nov 06

From: Commander, Navy Expeditionary Combat Command
To: Chief of Naval Operations (N851)

Subj: REQUIRED OPERATIONAL CAPABILITIES (ROC) AND PROJECTED OPERATIONAL ENVIRONMENT (POE) FOR NAVY RIVERINE FORCES

Ref: (a) OPNAVINST C3501.2J

Encl: (1) Draft Navy Riverine Force ROC and POE
(2) 3.5 diskette

1. Enclosure (1) is forwarded in accordance with reference (a) for review and routing approval. Enclosure (2) is an electronic draft of the instruction in Microsoft Word format.

2. My point of contact is LT Marc Carmichael at (757) 462-7400 Ext. 150, DSN 253-7400 Ext. 150, or E-mail: john.m.carmichael@navy.mil.

P. J. FROTHINGHAM
By direction

Copy to:
COMRIVGRU ONE

OPNAV INSTRUCTION 3501.xx

From: Chief of Naval Operations

Subj: REQUIRED OPERATIONAL CAPABILITES (ROC) AND PROJECTED OPERATIONAL ENVIRONMENTS (POE) FOR NAVY RIVERINE FORCES

Ref: (a) NWP 3-06M
(b) MCWP 3-35.4
(c) OPNAVINST C3501.2J
(d) NWP 1-03.3

Encl: (1) Operational Mission Areas for Navy Riverine Forces
(2) Projected Operating Environment for Navy Riverine Squadron
(3) Required Operational Capabilities for Navy Riverine Squadron

1. Purpose. To issue the Required Operational Capabilities (ROC) and the Projected Operational Environment (POE) for Navy Riverine Forces.

2. Discussion. This instruction provides pertinent information describing Navy Riverine Forces mission requirements, capabilities and the types and locations of expected operations as described in references (a), (b). Enclosures (1) through (3) have been prepared per reference (c). These enclosures provide the necessary details to describe the mission areas and operational capabilities for which Navy Riverine Forces were organized. Enclosures (1) and (2) shall also be used to assist in determining specific mission area M-Ratings reported under reference (d). This instruction provides resource agencies with the information they need concerning Naval Riverine Forces mission requirements, capabilities and projected operational environments.

3. Definitions.

a. Navy Riverine Forces (NRF). Provides a conventional riverine capability, as directed, through the conduct of waterborne mobility, security, command and control, and combat operations in support of military operations in a riverine

environment (i.e., rivers, dam facilities, FOB, sea based facilities).

b. Riverine Group (RIVGRU). Commissioned, Echelon 4 staff comprised of active duty personnel responsible for standardization and certification of training, strategic concepts, long range operational planning, exercise support, planning intelligence dissemination, administrative support and general logistics support to RIVRON and their subordinate units. RIVGRU provides administrative, financial and supply management, and readiness oversight of their subordinate units. They are organized to be deployable, however, only selected RIVGRU staff qualified personnel may be ordered to support local, regional, littoral or wartime NRF tasks.

c. Riverine Squadron (RIVRON). Commissioned, Echelon 5, operating unit responsible for deploying command, control, communication, computer and intelligence (C4I) and operational support detachments and units to form an ashore operations center. RIVRON provides administrative, financial and supply oversight and readiness of their subordinate units. Squadron staffs are manned by USN active duty personnel.

d. Riverine Boat Detachment (RBD). Commissioned, Echelon 6, deployable operating unit equipped with armed patrol craft and associated supporting equipment. RBD's routinely operate with other NRF assets to provide an enhanced force package for conducting security, command and control and combat operations in support of military operations in a riverine environment. RBD's are manned with USN active duty personnel.

4. Action. Fleet Commanders shall periodically review enclosures (1) through (3) and recommend changes to the Chief of Naval Operations (Attn: N85) when mission or capabilities of the Navy Riverine Forces are significantly altered. Change recommendations should include comments on the expected Activity Manpower Document (AMD) impact.

OPERATIONAL MISSION AREAS FOR RIVERINE FORCES

1. The Riverine Group (RIVGRU) Commander provides centralized planning, coordination, and integration of Riverine assets for waterborne mobility, security, command and control, and combat operations in support of military operations in a riverine environment. RIVGRU provides administrative support, operational planning, movement planning, intelligence dissemination, organizational and training oversight and certification for all units. RIVGRU is organized to be deployable on a limited basis. However, RIVGRU staff qualified personnel may be selectively ordered to support local, regional, littoral or wartime tasks or missions. The RIVGRU Commander exercises administrative control of Riverine Squadrons (RIVRON) and their Riverine Boat Detachments (RBD).

RIVERINE GROUP											
AMW	ASU	CCC	C2W	FSO	INT	LOG	MIW	MOB	MOS	NCO	NSW
S	S	P	S	P	P	P	S	P	S	P	S

2. The Riverine Squadron (RIVRON) will have a conventional riverine capability, as directed, through the conduct of Primary Missions. Primary Missions are those missions that a unit was established to perform during its wartime role. Secondary Missions are those missions that a unit could be expected to perform but are not essential to carry out its wartime role. The following primary and secondary warfare mission areas are assigned:

RIVERINE SQUADRON											
AMW	ASU	CCC	C2W	FSO	INT	LOG	MIW	MOB	MOS	NCO	NSW
S	S	P	S	P	P	P	S	P	S	P	S

3. The Riverine Boat Detachments (RBD) provide the following primary and secondary warfare mission areas:

RIVERINE BOAT DETACHMENT											
AMW	ASU	CCC	C2W	FSO	INT	LOG	MIW	MOB	MOS	NCO	NSW
S	S	P	S	P	P	P	S	P	S	P	S

4. ROC symbols are used to specify the desired level of achievement of readiness or other work for or during a particular readiness condition. Readiness normally applies to operations and/or evolutions, while other work refers to nonwatch activity such as performing maintenance or training.

CAPABILITIES

"F" = "Full" The capability is to be fully achieved. For operational functions this means that installed equipment or systems will be fully manned to design capability.

"L" = "Limited" The capability is to be only partially realized. Even though only limited capability is realized, it is to be sustained. A limiting statement specifying the limitation must support every "L".

PROJECTED OPERATING ENVIRONMENT FOR RIVERINE SQUADRON (RIVRON)

1. Navy Riverine Squadron (RIVRON) consist of active duty and reserve units capable of worldwide deployment to a river or delta specific mission environment. RIVRON's Tables of Allowances (TOA) share common equipment/systems for common tasks. This allows maximum inter-changeability.

2. The most demanding projected operating environment for RIVRON's is a wartime deployment to Forward Operating Base or Sea Base within the area of operations. RIVRON's may operate independently or with other naval, joint, allied or coalition forces in all climates and under all threat conditions, including chemical, biological and radiological (CBR).

3. The command and control environment may require RIVRON's to report to the theater combatant command (COCOM).

4. The riverine craft operate both day and night. They are all weather capable and are able to operate with a minimum endurance of 24 hours at patrol speeds. The craft are expected to patrol on navigable portions of rivers, deltas, lakes, harbors and bays up to sea state THREE (defined by the Beaufort scale). The force operates versus a level II threat to include small tactical, waterborne and unconventional warfare units. These hostile units will likely be armed with small arms, rocket propelled grenades and crew served weapons. Due to the expeditionary nature of these forces, they are transportable by military air to be moved to the theater of operations.

REQUIRED OPERATIONAL CAPABILITIES

RIVERINE SQUADRON		CAPABILITY
AMPHIBIOUS WARFARE (AMW)		
AMW 2	**LOAD, TRANSPORT AND LAND ELEMENTS OF A LANDING FORCE WITH THEIR EQUIPMENT, MATERIAL AND SUPPLIES IN AN AMPHIBIOUS ASSAULT.** Note - Capability limited to riverine environments. Restricted to vessel size.	
AMW 2.1	Load elements of a landing force with their equipment and supplies for an amphibious assault.	F
AMW 2.2	Transport landing force to the assault area.	F
AMW 2.3	Land the force and their equipment and supplies by air and/or waterborne means during an amphibious assault.	F
AMW 2.4	Beach and unload elements of a landing force with their equipment and supplies over the bow or from the stern in an amphibious assault.	F
AMW 2.10	Plan/direct the loading, transporting and landing of elements of a landing force with their attendant personnel in an amphibious assault.	F
AMW 3	**REEMBARK AND TRANSPORT EQUIPMENT, MATERIALS, SUPPLIES AND PERSONNEL**	
AMW 3.1	Re-embark and transport personnel of the landing force.	F
AMW 3.2	Load of equipment onboard amphibious ships.	F
AMW 3.2	Re-embark and transport equipment, materials and supplies	F
AMW 9	**CONDUCT PREASSAULT COVER AND DIVERSIONARY ACTIONS.**	
AMW 9.1	Plan/direct pre-assault cover and diversionary actions.	F
AMW 9.2	Conduct pre-assault cover and diversionary actions.	F
AMW 19	**PERFORM AMW BATTLE DAMAGE ASSESSMENT (BDA).**	
AMW 19.1	Perform AMW BDA. L - Capability limited to riverine environments.	L
AMW 19.2	Coordinate and evaluate AMW BDA. L - Capability limited to riverine environments.	L
AMW 22	**PROTECT/EVACUATE NON-COMBATANT, PERMISSIVE TO NON-PERMISSIVE, INCLUDING TRANSPORT TO ATF OR SAFE HAVENS.**	

AMW 22.1 Plan/direct Non-combatant Evacuation Operations(NEO), permissive to non-permissive, including transport to ATF or safe havens. L - Limited Command and Control (C^2) capability. Limited intelligence processing capability.	L
AMW 22.2 Coordinate NEO with State Department representatives.	F
AMW 22.3 Conduct Non-combatant Evacuation Operations (NEO), permissive to non-permissive, including transport to ATF or safe havens.	F
AMW 24 CONDUCT DIRECT ACTION AMPHIBIOUS RAIDS.	
AMW 24.1 Plan/direct direct action amphibious raids. L - Capability limited to riverine environments.	L
AMW 24.2 Conduct direct action amphibious raids. Note - Capability limited to riverine environments. L - Capability limited to transporting GCE	L
AMW 26 CONDUCT TACTICAL RECOVERY OF AIRCRAFT AND PERSONNEL (TRAP).	
AMW 26.1 Plan/direct TRAP missions. L - Capability limited to riverine environments.	L
AMW 26.2 Conduct TRAP missions. L - Capability limited to riverine environments.	L
AMW 29 CONDUCT SECURITY OPERATIONS TO PROTECT U.S. PROPERTY AND NON-COMBATANTS IN HOSTILE AND NON-HOSTILE ENVIRONMENTS	
AMW 29.1 Plan/direct security operations to protect U.S. property and non-combatants in hostile and non-hostile foreign environments.	F
AMW 29.2 Conduct security operations to protect U.S. property and non-combatants in hostile and non-hostile foreign environments.	F
AMW 31 PROVIDE INSTRUCTION TO NON-U.S. UNITS USING MOBILE TRAINING TEAMS.	
AMW 31.1 Plan/direct use of mobile training teams to provide instruction to non-U.S. units.	F
AMW 31.2 Conduct use of mobile training teams to provide instruction to non-U.S. units.	F
ANTISURFACE SHIP WARFARE (ASU)	
AMW 35 CONDUCT LIMITED OBJECTIVE NIGHT ATTACKS.	
AMW 35.1 Plan/direct limited objective night attacks. L - Capability limited to riverine environments.	L
AMW 35.1 Conduct limited objective night attacks. L - Capability limited to riverine environments.	L
AMW 40 CONDUCT NIGHT REINFORCEMENT OPERATIONS.	
AMW 40.1 Plan/direct night reinforcement operations. L - Capability limited to riverine environments.	L
AMW 40.2 Conduct night reinforcement operations. L - Capability limited to riverine environments.	L
AMW 43 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S AMW CAPABILITIES.	F
ASU 1 USING ANTI-SURFACE ARMAMENTS, ENGAGE SURFACE THREATS.	

ASU 1.6 Engage surface ships with minor caliber gunfire (i.e., 25mm, 20mm, and .50 cal).	F
ASU 1.9 Engage surface ships with small arms gunfire.	F
ASU 1.10 Conduct close in surface self-defense using crew operated machine guns (i.e. 25mm, 20mm, and .50 cal.)	F
ASU 1.12 Plan/direct engagement of surface threats. L - Capability limited to riverine environments.	L
ASU 1.14 Direct embarked or non-organic armed helo to engage surface ships. L - Capability limited to helo availability.	L
ASU 2 ENGAGE SURFACE TARGETS IN COOPERATION WITH OTHER FORCES.	
ASU 2.2 Conduct ASU to support surface forces. L - Capability limited to riverine environments.	L
ASU 2.3 Engage surface targets within assigned anti-surface sector. L - Capability limited to riverine environments.	L
ASU 3 PROVIDE ASU DEFENSE OF A GEOGRAPHICAL AREA (E.G., AOA, BARRIER) INDEPENDENTLY OR IN COOPERATION WITH OTHER FORCES.	
ASU 3.1 Provide ASU defense of a geographic area. L - Capability limited to riverine environments.	L
ASU 3.2 Plan and direct ASU defense of a geographic area. L - Limited Command and Control (C^2) capability. Limited intelligence processing capability. Capability limited to riverine environments.	L
ASU 4 DETECT, IDENTIFY, LOCALIZE AND TRACK SURFACE SHIP TARGETS.	
ASU 4.1 Detect, localize and track surface contacts with radar.	F
ASU 4.4 Detect, identify, classify and track surface contacts visually.	F
ASU 4.5 Detect, identify and track surface contacts with infrared (IR) equipment.	F
ASU 4.7 Identify surface contacts.	F
ASU 4.13 Detect, identify, classify and track surface contacts with Night Vision (NV) goggles.	F
ASU 4.14 Plan/direct detection, identification, localization, classification and tracking of surface targets. L - Limited C2 capability.	L
ASU 6 DISENGAGE, EVADE AND AVOID SURFACE ATTACK.	
ASU 6.1 Employ countermeasures. (Choose as applicable)	F
ASU 6.2 Employ evasion techniques.	F
ASU 6.3 Employ EMCON procedures.	F
ASU 6.5 Plan/direct disengagement, evasion and avoidance of surface attack.	F
ASU 13 CONDUCT PREATTACK DECEPTION IN SUPPORT OF ASU OPERATIONS.	

ASU 13.1 Perform preattack deception in support of ASU operations. L - Capability limited to riverine environments.	L
ASU 13.2 Plan/direct preattack deception in support of ASU operations. L - Capability limited to riverine environments.	L
ASU 14 REPAIR OWN UNIT'S ASU EQUIPMENT. L - Organizational level repair. Emergency repairs to equipment critical to unit's mission.	L
ASU 16 PERFORM ASU BATTLE DAMAGE ASSESSMENT (BDA).	
ASU 16.1 Perform ASU BDA. L - Capability limited to riverine environments.	L
ASU 16.2 Coordinate and evaluate ASU BDA. L - Capability limited to riverine environments.	L
ASU 17 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S ASU CAPABILITIES.	F
COMMAND, CONTROL AND COMMUNICATIONS (CCC)	
CCC 3 PROVIDE OWN UNIT'S COMMAND AND CONTROL FUNCTIONS.	
CCC 3.1 Maintain a TOC or COC capable of collecting, processing, displaying, evaluating and disseminating tactical information. L - Limited C^2 capability.	L
CCC 3.3 Provide all personnel services, programs and facilities to safeguard classified material and information.	F
CCC 3.4 Carry out emergency destruction of classified material and equipment.	F
CCC 3.11 Establish voice communications with supported forces.	F
CCC 3.12 Repair own unit's CCC equipment. L - Organizational level repair. Emergency repairs to equipment critical to unit's mission.	L
CCC 6 PROVIDE COMMUNICATIONS FOR OWN UNIT.	
CCC 6.1 Maintain tactical voice communications.	F
CCC 6.6 Process messages. L - Provided by supported unit.	L
CCC 6.12 Maintain internal communications systems.	F
CCC 6.16 Provide tactical, secure, anti-jam ultra-high frequency (UHF) voice communications.	F
CCC 6.17 Provide tactical, secure, anti-jam very-high frequency (VHF) voice communications.	F
CCC 19 REPAIR OWN UNITS CCC EQUIPMENT. L - Organizational level repair. Emergency repairs to equipment critical to unit's mission.	L
CCC 20 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S CCC CAPABILITIES.	F
COMMAND AND CONTROL WARFARE (C^2W) AND INFORMATION WARFARE (IW)	
C^2W 4 PLAN AND IMPLEMENT OPERATIONS SECURITY (OPSEC) MEASURES.	

C^2W 4.1 Implement appropriate/directed electromagnetic/acoustic EMCON condition.	F
C^2W 4.2 Transition rapidly from one EMCON condition to another.	F
C^2W 4.3 Monitor own unit compliance with EMCON condition in effect.	F
C2W 4.5 Plan/direct electromagnetic/acoustic EMCON operations.	F
C^2W 4.11 Plan, coordinate and control implementation of OPSEC measures.	F
C^2W 4.11 Execute OPSEC measures.	F
C^2W 6 PLAN AND CONDUCT COUNTER-SURVEILLANCE, COUNTER-TARGETING AND MILITARY DECEPTION OPERATIONS.	
C2W 6.7 Conduct naval deception operations using tactics, operations, exercises or physical means. L - Capability limited to riverine environments.	L
C2W 6.8 Execute military tactical deception operations using technical means (electronic, acoustic, visual and electro/optical (EO)). L - Capability limited to riverine environments.	L
C^2W 12 DIRECT/PERFORM FUNCTIONS OF C^2W COMMANDER	
C^2W 12.7 Plan the force's tactical use of information systems and sensors.	F
C^2W 12.9 Coordinate sensor collection plans for required areas and threats within the C^2W/IW AOR.	F
C2W 12.12 Collect, integrate, evaluate and disseminate tactical threat information within the AOR. L - Limited C2 capability.	L
C2W 12.15 Coordinate with the staff intelligence officer (N2/J2) to provide indications and warning to the force. L - Provided by supported unit.	L
C2W 12.17 Manage force's use of C4I architecture. L - Own unit's capability.	L
C2W 12.18 Manage force's tactical databases. L - Own unit's capability.	L
C^2W 14 REPAIR OWN UNIT'S C^2W EQUIPMENT L - Organizational level repair. Emergency repairs to equipment critical to unit's mission.	L
C^2W 16 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S C^2W CAPABILITIES	F
FLEET SUPPORT OPERATIONS (FSO)	
FSO 5 CONDUCT TOWING/SEARCH/SALVAGE/RESCUE OPERATIONS. L - Capability limited to riverine environments. Restricted to vessel size.	

FSO 5.1 Conduct towing operations. L - Own unit, emergency operations.	L
FSO 5.3 Conduct rescue operations.	F
FSO 5.17 Prepare a vessel or craft to be towed. L - Own unit, emergency operations.	L
FSO 5.18 Augment a towing vessel in the conduct of towing operations. L - Own unit, emergency operations.	L
FSO 6 SUPPORT/CONDUCT SEARCH AND RESCUE (SAR) OPERATIONS IN A COMBAT/NONCOMBAT ENVIRONMENT. L - Capability limited to riverine environments. Restricted to vessel size.	
FSO 6.2 Conduct combat/noncombat SAR operations by surface ships.	F
FSO 6.4 Recover man overboard.	F
FSO 6.7 Conduct general surveillance. L - Capability limited to riverine environments.	L
FSO 6.9 Report situation assessment.	F
FSO 6.10 Coordinate SAR operations. L - Capability limited to riverine environments.	L
FSO 6.12 Conduct combat SAR operations in support of battle force operations by special warfare forces in a hostile environment. L - Capability limited to riverine environments.	L
FSO 9 PROVIDE MEDICAL CARE TO ASSIGNED AND EMBARKED PERSONNEL.	

	FSO 9.1 Conduct sick call.	F
	FSO 9.5 Conduct sanitation and safety inspections.	F
	FSO 9.6 Conduct occupational health/safety and preventive medicine programs and training using the following personnel (choose as applicable):	DEL FOR DET
(a)	Hospital corpsmen	
	FSO 9.8 Conduct pharmacy services requiring the following personnel (choose as applicable):	DEL FOR DET
(a)	Hospital corpsmen	
	FSO 9.9 Conduct associated administrative/maintenance services (choose as applicable):	F
(a)	Maintain adequate medical supplies for appropriate level health care.	
	FSO 9.10 Conduct on-site emergency medical treatment during hazardous evolutions including flight quarters, underway replenishment/refueling and amphibious assault boat operations.	F
	FSO 9.15 Conduct disease and vector control planning and operations.	DEL FOR DET
	FSO 9.17 Identify, equip and maintain suitable spaces to provide medical care.	DEL FOR DET
	FSO 9.18 Identify, equip and maintain adequate storage spaces for medical equipment and medical supplies.	F
	FSO 9.19 Provide medical care, triage and resuscitation commensurate with health care provider credentials using the following personnel (choose as applicable):	F
(a)	Independent duty corpsman	
FSO 10	**PROVIDE FIRST AID ASSISTANCE.**	
	FSO 10.1 Identify, equip and maintain appropriate first aid spaces.	F
	FSO 10.2 Train assigned and embarked personnel in first aid, self and buddy aid procedures.	F
	FSO 10.3 Train stretcher bearers.	F
FSO 11	**PROVIDE TRIAGE OF CASUALTIES/PATIENTS**	

FSO 11.2 Train assigned and embarked personnel in triage care.	F
FSO 11.3 Provide administrative support to augmentation personnel/associated equipment that are assigned to triage and Chemical, Biological and Radiological (CBR) decontamination stations. L - Limited to number of personnel available	L
FSO 11.4 Train designated non-medical personnel to assist in triage management care for CBR contamination casualties. L - Limited to number of personnel available	L
FSO 11.5 Train designated non-medical personnel in CBR casualty decontaminated procedures. L - Limited to number of personnel available	L
FSO 11.6 Train designated supervisory medical personnel in oversight procedures during CBR casualty decontamination. L - Limited to number of personnel available	L
FSO 11.7 Provide medical treatment for chemical, biological radiological casualties. L - Limited to number of personnel available	L
FSO 12 PROVIDE MEDICAL/SURGICAL TREATMENT FOR CASUALTIES/PATIENTS.	
FSO 12.2 Train assigned and embarked personnel in resuscitation.	F
FSO 12.4 Identify, equip and maintain adequate medical supply storage spaces for appropriate level of resuscitation. **NOTE: Equipment and storage spaces adequate to meet the needs of field first aid.**	F
FSO 13 PROVIDE MEDICAL, SURGICAL, POST-OPERATIVE AND NURSING CARE FOR CASUALTIES/PATIENTS.	DEL FOR DET
FSO 13.6 Provide suitable care for the dead.	DEL FOR DET
FSO 14 PROVIDE MEDICAL REGULATION, TRANSPORT/EVACUATION AND RECEIPT OF CASUALTIES/PATIENTS.	
FSO 14.4 Transport and/or provide for casualty/patient evacuation. L - Limited to number of personnel available	L
FSO 14.5 Train assigned and embarked personnel in medical evacuation procedures.	F
FSO 20 PROVIDE FLEET TRAINING SERVICES.	
FSO 20.18 Provide anti-fast patrol boat training services for ships and aircraft.	F
FSO 51 REPAIR OWN UNITS FSO-RELATED EQUIPMENT.	F
FSO 55 MAINTAIN READINESS BY PROVIDING FOR TRAINING OF OWN UNIT'S PERSONNEL.	F
INTELLIGENCE (INT)	
INT 1 SUPPORT/CONDUCT INTELLIGENCE COLLECTION.	

INT 1.3 Support/conduct imagery intelligence information collection. L - Limited to afloat operations.	L
INT 1.8 Collect or capture selected material or personnel for intelligence exploitation. L - Limited to riverine interdiction of craft and personnel embarked.	L
INT 1.10 Gather intelligence in restricted and shallow water areas relating to disposition and movement of enemy fleet units and ground units.	F
INT 2 PROVIDE INTELLIGENCE.	
INT 2.2 Evaluate and disseminate intelligence information.	F
INT 3 CONDUCT SURVEILLANCE AND RECONNAISSANCE.	
INT 3.2 Conduct covert surveillance and reconnaissance operations. L - Limited to afloat operations.	L
INT 6 CONDUCT SURFACE RECONNAISSANCE.	
INT 6.1 Conduct surface patrols or barriers.	F
INT 6.3 Conduct reconnaissance of surface forces.	F
INT 6.6 Plan/direct surface reconnaissance.	F
INT 6.7 Recognize by sight friendly and enemy aircraft, ships, and potential naval fire support targets which may be encountered in the expected operating areas.	F
INT 9 DISSEMINATE SURVEILLANCE AND RECONNAISSANCE INFORMATION.	F
INT 15 PROVIDE INTELLIGENCE SUPPORT FOR NONCOMBAT EVACUATION OPERATIONS (NEO).	
INT 15.1 Collect and integrate intelligence in support of NEO.	F
INT 15.2 Disseminate integrated all source intelligence to NEO participants.	F
INT 15.3 Debrief evacuees.	F
LOGISTICS (LOG)	
LOG 4 SUPPORT SHIPS AND AIRCRAFT IN SUPPLIES, ORDNANCE AND OTHER SERVICES.	
LOG 4.2 Stock, maintain, issue and provide security for weapons, ammunition pyrotechnics and acoustic evasion devices.	F
LOG 9 REPAIRS OWN UNITS LOGISTICS EQUIPMENT. L - Capability limited to riverine environments.	L
LOG 10 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S LOG CAPABILITIES. L - Capability limited to riverine environments.	L
MINE WARFARE (MIW)	
MIW 3 CONDUCT MINE NEUTRALIZATION/DESTRUCTION.	

MIW 3.1 Neutralize located mines. L - EOD specific	L
MIW 3.2 Destroy floating mines. L - EOD specific	L
MIW 3.6 Provide support for embarked EOD/SEAL. L - Small craft and limited to communications support.	L
MIW 4 CONDUCT MINE COUNTERMEASURES (MCM).	
MIW 4.2 Vector small craft to mark located mine like objects.	F
MIW 4.9 Conduct surveillance of potential enemy mine laying activity.	F
MIW 8 CONDUCT PRECISE NAVIGATION.	
MIW 8.5 Safely navigate minefields. L - Capability limited to riverine environments.	L
MOBILITY (MOB)	
MOB 1 OPERATE SHIP'S PROPULSION PLANT TO DESIGNED CAPABILITY.	
MOB 1.11 Operate employing diesel engines.	F
MOB 3 PREVENT AND CONTROL DAMAGE.	
MOB 3.1 Control fire, flooding, electrical, structural, propulsion and hull/airframe casualties. L - Capability limited inport until duty damage control party arrives from base support unit and limited underway to basic casualty control measures.	L
MOB 3.2 Counter and control chemical, biological and radiological (CBR) contaminants/agents. L - Capability limited to emergency reaction.	L
MOB 3.3 Maintain security against unfriendly acts.	F
MOB 3.5 Provide damage control security/surveillance. L - Limited to riverine environments.	L
MOB 4 TRANSFLY ON SHORT NOTICE.	
MOB 4.1 Self-lift from staging site to departure site.	F
MOB 5 MANEUVER IN FORMATION.	F
MOB 7 PERFORM SEAMANSHIP, AIRMANSHIP AND NAVIGATION TASKS.	
MOB 7.1 Navigate under all conditions of geographic location, weather and visibility. L - Limited to riverine environments and land navigation during emergency situations.	L
MOB 7.6 Abandon/scuttle ship rapidly.	F
MOB 7.8 Tow or be towed (towing engine not required).	F
MOB 7.9 Operate day and night and under all weather conditions. L - Limited to sea state. All craft limited by weather conditions.	L
MOB 7.10 Conduct undetected transits.	F
MOB 7.16 Recover man overboard (shipboard, boat or helicopter).	F
MOB 10 REPLENISH AT SEA.	

MOB 10.3 Receive munitions and provisions while underway. L - Limited VERTREP. Craft must make-up to servicing ship.	L
MOB 11 MAINTAIN MOUNT-OUT CAPABILITIES.	
MOB 11.1 Deploy with organic allowance within designated time period.	F
MOB 11.2 Mount-out selected elements/detachments.	F
MOB 11.3 Maintain capability for rapid airlift of unit/detachment as directed.	F
MOB 11.5 Maintain capability for rapid ground conveyance of unit/detachment.	F
MOB 11.6 Maintain capability to install, check and maintain detachment personnel.	F
MOB 12 MAINTAIN THE HEALTH AND WELL-BEING OF THE CREW.	
MOB 12.1 Ensure all phases of food service operations are conducted consistent with approved sanitary procedures and standards.	F
MOB 12.2 Ensure the operation of the potable water system in a manner consistent with approved sanitary procedures and standards.	F
MOB 12.5 Monitor the health and well-being of the crew to ensure that habitability is consistent with approved habitability procedures and standards.	F
MOB 12.7 Provide individual protective clothing and equipment to sufficiently protect casualties in case of CBR contamination. L - Limited to own unit.	L
MOB 12.8 Provide individual protective clothing and equipment to sufficiently protect shipboard personnel identified being at risk in a CBR-contaminated environment.	F
MOB 12.11 Provide antidotes to staff, patients and casualties which will counteract the effects caused by a CBR-contaminated environment.	F
MOB 12.12 Provide antidotes to ship's company which will counteract the effects caused by a CBR-contaminated environment.	F
MOB 12.13 Train designated medical supervisors and non-medical personnel to detect CBR-contaminated casualties.	F
MOB 12.14 Train designated non-medical personnel to decontaminate CBR casualties. L - Limited to own unit.	L
MOB 14 CONDUCT OPERATIONS ASHORE.	
MOB 14.1 Operate in climate extremes ranging from cold weather to tropical to desert environments	F
MOB 14.2 Operate in rear of combat zone in Afloat Pre-Positioning Force (APF) or Marine Expeditionary Brigade (MEB) environment.	F
MOB 14.4 Move up to 10 percent of operating equipment using organic motor transport assets.	F
MOB 14.6 Conduct limited local security defensive combat operations.	F
MOB 14.7 Provide qualified personnel to conduct site survey.	F
MOB 17 PERFORM ORGANIZATIONAL LEVEL REPAIRS TO OWN UNIT'S	L

MOB EQUIPMENT. L - Organizational level repair.	
MOB 18 CONDUCT CASUALTY CONTROL PROCEDURES TO MAINTAIN/RESTORE OWN UNIT'S MOB CAPABILITIES	F
MISSIONS OF STATE (MOS)	
MOS 1 PERFORM NAVAL DIPLOMATIC PRESENCE OPERATIONS.	
MOS 1.2 Conduct force/unit tour for foreign dignitaries.	F
MOS 1.3 Conduct systems/weapons demonstrations for foreign dignitaries. L - Capability limited to riverine environment and clear weapons range availability.	L
MOS 1.4 Conduct foreign port calls.	F
MOS 1.8 Participate in military exercises with allied nations.	F
MOS 2 PROVIDE HUMANITARIAN ASSISTANCE.	
MOS 2.1 Deliver relief material. L - Based on Logistical support and size.	L
MOS 2.2 Provide emergency flooding/fire fighting assistance. L - Limited to equipment on hand.	L
MOS 2.10 Support/provide for the evacuation of noncombatant personnel in areas of civil or international crisis. L - Limited to craft size.	L
MOS 2.11 Support/conduct helicopter/boat evacuation of non-combatant personnel as directed by higher authority from areas of civil or international crisis. L - Limited to craft size.	L
MOS 2.14 Provide transportation for evacuees to designated safe havens or onward processing centers. L - Limited to craft size.	L
MOS 2.15 Plan/direct the evacuation of noncombat personnel in areas of civil or international crisis in both a permissive and non-permissive environment (including joint/combined operations). L - Capability limited to riverine environments.	L
MOS 4 PERFORM INTERDICTION	
MOS 4.1 Conduct naval blockade. L - Capability limited to riverine environments.	L
MOS 4.2 Conduct quarantine operations. L - Capability limited to riverine environments.	L
MOS 4.3 Enforce sanction enforcement operations. L - Capability limited to riverine environments.	L
MOS 4.4 Conduct Maritime Interception Operations (MIO) and/or Visit, Board, Search and Seizure (VBSS) operations with naval/combined /joint forces.	F
MOS 5 PROVIDE FOREIGN INTERNAL DEFENSE (FID) ASSISTANCE	

MOS 5.3 Conduct civil-military activities that isolate the insurgent and exploit his vulnerabilities. L - Limited to riverine environment	L
MOS 5.4 Conduct tactical operations in close cooperation with the host nation that focus on neutralizing and destroying the insurgent threat in the maritime environment. L - Limited to riverine environment.	L
NONCOMBAT OPERATIONS (NCO)	
NCO 2 PROVIDE ADMINISTRATIVE AND SUPPLY SUPPORT FOR OWN UNIT.	
NCO 2.1 Provide supply support services.	F
NCO 2.2 Provide clerical services.	F
NCO 2.8 Provide personnel for living space maintenance.	F
NCO 2.9 Provide personnel for area command security.	F
NCO 3 PROVIDE UPKEEP AND MAINTENANCE OF OWN UNIT.	
NCO 3.1 Provide organizational level preventive maintenance.	F
NCO 3.2 Provide organizational level corrective maintenance. L - Capability limited to emergency repair and severity of damage.	L
NCO 3.3 Provide small arms storage area.	F
NCO 3.4 Maintain preservation and cleanliness of topside and internal spaces	F
NCO 3.5 Provide for proper storage, handling, use and transfer of hazardous materials.	F
NCO 8 SERVE AS A PLATFORM FOR OPERATIONAL TEST AND EVALUATION OF SYSTEMS, EQUIPMENT AND TACTICS.	
NCO 8.2 Perform the test and evaluation functions set forth in the appropriate test plans.	F
NCO 10 PROVIDE EMERGENCY/DISASTER ASSISTANCE.	
NCO 10.1 Provide emergency flooding/fire fighting assistance to another unit. L - Limited to onboard pumps and portable fire extinguishers.	L
NCO 10.4 Provide disaster assistance and evacuation. L - Limited to vessel size.	L
NCO 11 SUPPORT/PROVIDE FOR THE EVACUATION OF NONCOMBATANT PERSONNEL IN AREAS OF CIVIL OR INTERNATIONAL CRISIS.	
NCO 11.1 Support/conduct helicopter/boat evacuation of Non-combatant personnel as directed by higher authority from areas of civil or international crisis. L - Limited to vessel size.	L
NCO 11.4 Provide transportation for evacuees to designated safe havens or onward processing centers. L - Limited to vessel size.	L
NCO 17 CONDUCT PORT SECURITY/HARBOR DEFENSE (PSHD) OPERATIONS.	

	NCO 17.2	Conduct anti-infiltration operations.	F
	NCO 17.8	Provide shore side/waterside self-defense.	F
NCO 19	**CONDUCT MARITIME LAW ENFORCEMENT OPERATIONS.**		
	NCO 19.1	Detect and identify noncombatant vessels.	F
	NCO 19.2	Conduct boarding and inspection of noncombatant vessels.	F
	NCO 19.3	Provide assistance to other law enforcement forces.	F
	NCO 19.4	Provide surveillance and protection of maritime resources.	F
	NCO 19.5	Conduct peacekeeping/disarmament operations.	F
	NCO 19.6	Conduct seizure of noncombatant vessels.	F
NCO 20	**ASSIST AND SUPPORT THE OPERATING FORCES IN THE PLANNING AND CONDUCT OF COVER AND DECEPTION.**		
	NCO 20.1	Provide personnel and equipment to operational commanders upon request to support the planning and conduct of deception operations.	F
	NCO 20.2	Within constraints of available resources, plan for and provide notional forces and equipment to support approved deception plans.	F
	NCO 20.4	Provide support required for deception operations to conceal the true identity, composition, location, mission, capabilities and readiness of naval units or forces.	F
	NCO 20.5	Conduct operations to deceive enemy intelligence collection efforts as relates to U.S. Navy Research, development, testing and evaluation (RDT&E) activities in order to maintain secrecy of naval weapons and electronic capabilities.	F
NCO 32	**CONDUCT COUNTERNARCOTIC AND OTHER LAW ENFORCEMENT SUPPORT OPERATIONS IN CONJUNCTION WITH OTHER FORCES.**		
	NCO 32.1	Conduct/support operations with Coast Guard Units.	F
	NCO 32.2	Conduct/support operations with other federal law enforcement agencies.	F
	NCO 32.4	Conduct operations with other national governments.	F
NCO 33	**SUPPORT/PROVIDE COUNTERNARCOTICS AND OTHER LAW ENFORCEMENT SUPPORT PATROL OF A FIXED GEOGRAPHIC AREA.**		
	NCO 33.1	Operate as choke point patrol unit.	F
NCO 34	**IN SUPPORT OF COUNTERNARCOTICS AND OTHER LAW ENFORCEMENT OPERATIONS, DETECT AND MONITOR SUSPECT SURFACE CONTACTS.**		

NCO 34.1 Detect and monitor surface contacts with radar.	F
NCO 34.2 Detect and monitor surface contacts visually.	F
NCO 34.3 Detect and monitor surface contacts with infrared equipment.	F
NCO 34.4 Detect and monitor surface contacts with electronic surveillance methods.	F
NAVAL SPECIAL WARFARE (NSW)	
NSW 1 CONDUCT HYDROGRAPHIC RECONNAISSANCE.	
NSW 1.3 Locate and mark usable channels. L - Capability limited to riverine environments.	L

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Enclosed is the report on U.S. Navy and U.S. Coast Guard Patrol Vessel requirements that was required by the Fiscal Year 2007 Defense Authorization Conference Report 109-702. The United States Coast Guard concurs with the contents of the report.

The CYCLONE Class Patrol Coastal (PC) vessels bring a significant capability to the Coast Guard as a near-term augmentation to their 110' Patrol Boat (WPB) force and to the Navy as a longer-term operational asset critical to our forward deployed Combatant Commanders. Studies have shown that there is a current Navy requirement for Coastal Patrol vessels and that this requirement is likely to grow in the future. Due to Coast Guard's near term Patrol Boat Operational Hour shortfall, Navy and Coast Guard have agreed that Navy will take a short term risk in the number of Navy Coastal Patrol vessels and will extend the loan of three of the five vessels currently in Coast Guard custody for three additional years until 2011.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed is the report on U.S. Navy and U.S. Coast Guard Patrol Vessel requirements that was required by the Fiscal Year 2007 Defense Authorization Conference Report 109-702. The United States Coast Guard concurs with the contents of the report.

The CYCLONE Class Patrol Coastal (PC) vessels bring a significant capability to the Coast Guard as a near-term augmentation to their 110' Patrol Boat (WPB) force and to the Navy as a longer-term operational asset critical to our forward deployed Combatant Commanders. Studies have shown that there is a current Navy requirement for Coastal Patrol vessels and that this requirement is likely to grow in the future. Due to Coast Guard's near term Patrol Boat Operational Hour shortfall, Navy and Coast Guard have agreed that Navy will take a short term risk in the number of Navy Coastal Patrol vessels and will extend the loan of three of the five vessels currently in Coast Guard custody for three additional years until 2011.

A similar letter has been sent to Chairmen Levin, Inouye, and Skelton. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed is the report on U.S. Navy and U.S. Coast Guard Patrol Vessel requirements that was required by the Fiscal Year 2007 Defense Authorization Conference Report 109-702. The United States Coast Guard concurs with the contents of the report.

The CYCLONE Class Patrol Coastal (PC) vessels bring a significant capability to the Coast Guard as a near-term augmentation to their 110' Patrol Boat (WPB) force and to the Navy as a longer-term operational asset critical to our forward deployed Combatant Commanders. Studies have shown that there is a current Navy requirement for Coastal Patrol vessels and that this requirement is likely to grow in the future. Due to Coast Guard's near term Patrol Boat Operational Hour shortfall, Navy and Coast Guard have agreed that Navy will take a short term risk in the number of Navy Coastal Patrol vessels and will extend the loan of three of the five vessels currently in Coast Guard custody for three additional years until 2011.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

March 28, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Enclosed is the report on U.S. Navy and U.S. Coast Guard Patrol Vessel requirements that was required by the Fiscal Year 2007 Defense Authorization Conference Report 109-702. The United States Coast Guard concurs with the contents of the report.

The CYCLONE Class Patrol Coastal (PC) vessels bring a significant capability to the Coast Guard as a near-term augmentation to their 110' Patrol Boat (WPB) force and to the Navy as a longer-term operational asset critical to our forward deployed Combatant Commanders. Studies have shown that there is a current Navy requirement for Coastal Patrol vessels and that this requirement is likely to grow in the future. Due to Coast Guard's near term Patrol Boat Operational Hour shortfall, Navy and Coast Guard have agreed that Navy will take a short term risk in the number of Navy Coastal Patrol vessels and will extend the loan of three of the five vessels currently in Coast Guard custody for three additional years until 2011.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy:
The Honorable John S. McCain
Ranking Minority Member

Report to Congress

On

USN/USCG Patrol Vessel Requirements

PREPARED BY:
Director of Surface Warfare
Office of the Chief of Naval Operations
2000 Navy Pentagon, Room 5B453
Washington, DC 20350

Office of Cutter Forces
Coast Guard Headquarters (CG-37RCU)
2100 2nd Street SW
Washington, DC 20593

March 2007

Table of Contents

Section		Page
I.	Report Requirements	1
II.	Executive Summary	1
III.	Report	2
	A. History and Background	2
	B. Mission requirements for Coast Guard Patrol Boats and Navy Patrol Coastal ships through 2012. 1. Coast Guard Patrol Boats 2. Navy Patrol Craft	4
	C. Program plan and alternatives to meet Coast Guard deepwater Patrol Boat requirements through 2012.	6
	D. Program plan and alternatives to meet Navy Patrol Coastal ship requirements through 2012.	7
	E. Impact to Navy operational requirements if the Patrol Coastal ships currently being operated by the Coast Guard remain with the Coast Guard to support the Coast Guard mission.	8
	F. Areas of overlap between the Coast Guard's Patrol Boat requirements and the Navy's Patrol Coastal ship requirements in terms of logistics, operations, and maintenance.	9

I. Report Requirements

The Fiscal Year 2007 Defense Authorization Conference Report 109-702 directs a SECNAV report: "Accordingly, the conferees direct the Secretary of the Navy, in consultation with the Secretary of the department in which the Coast Guard is operating, to submit a report to Congress, not later than March 30, 2007. The report shall: (1) identify validated mission requirements for both Coast Guard patrol boats and Navy Patrol Coastal ships through 2012; (2) identify a specific program plan, including alternatives to meet Coast Guard Deepwater patrol boat requirements through 2012; (3) identify a specific program plan, including alternatives to meet Navy Patrol Coastal ship requirements through 2012; (4) describe the impact to Navy operational requirements if the Patrol Coastal ships currently being operated by the Coast Guard remain with the Coast Guard to support the Coast Guard mission; and (5) identify areas of overlap between the Coast Guard's patrol boat requirements and the Navy's Patrol Coastal ship requirements in terms of logistics, operations, and maintenance."

II. Executive Summary

The USCG has been consulted in accordance with Congressional direction. This report was coordinated with the staff of USCG Headquarters, Assistant Commandant for Operations (USCG 3). The Chief of Staff, USCG completed a review 15 March 2007. The USCG concurs with the content of this report.

There is a current Memorandum of Agreement (MOA) between the Navy and the Coast Guard signed in July 2004 that transferred custody and operational control of four of the Patrol Coastal Ships (PC)s from the Navy to the Coast Guard effective October 1, 2004 until the end of Fiscal Year 2008. This MOA was amended in January 2005 to add a fifth PC to Coast Guard custody effective October 1, 2005 with the same terms as the original MOA.

PCs deliver significant capability in support of Navy and Coast Guard mission requirements. For the Coast Guard they provide near-term augmentation to their 110' WPB force and to the Navy they provide a longer-term critical operational asset to the Combatant Commanders.

Two of the Coast Guard PCs are homeported in San Diego, CA and three PCs are homeported in Pascagoula, MS. These five PCs are engaged in Maritime Homeland Security, Search and Rescue, Alien Migrant Interdiction, and Maritime Law Enforcement operations.

Five of the eight Navy PCs are homeported in Bahrain operating in the Fifth Fleet Area of Operations. These five PCs currently execute the following missions: protecting Iraqi oil platforms; Maritime Interdiction Operations (MIO); escort operations in the Arabian Gulf; and Theater Security Cooperation (TSC) with Gulf Coalition Countries.

The remaining three Navy PCs are homeported in Little Creek, VA and are the training platforms for the thirteen Navy PC crews who rotate to the forward deployed PCs. Additionally, the CONUS based PCs are available to surge to assist with emergency National tasking in support of Maritime Homeland Security operations.

To meet Coast Guard deep water Patrol Boat requirements through 2012, the Navy and Coast Guard agreed in January 2007 that the MOA would be amended again to extend the transfer of three of the five PCs in Coast Guard custody for an additional three years until September 30, 2011. The other two PCs would be returned to the Navy on or about September 30, 2008 in accordance with the original MOA. The Navy and Coast Guard are currently collaborating in the draft of this MOA amendment.

In an effort to update the requirements and characteristics of Small Combatant Craft in support of Navy Patrol Coastal ship requirement through 2012, the Navy completed three studies. The results of these studies identified a valid Navy requirement for a small combatant craft to conduct green water operations and a plan to extend the service life of current PCs as the most cost effective method to address that requirement. As part of the Fiscal Year 2008 President's Budget request, the Navy developed a PC service life extension program (SLEP) designed to extend the service life of PCs by ten years.

Although the demand for Navy small combatant craft to conduct TSC missions is growing, the Navy determined that it could take a short-term risk in the number of Navy PCs to support the Coast Guard near-term shortfall. The impact to Navy operational requirements if none of the PCs loaned to the Coast Guard were returned is that there would be no assets available to complete any expanded TSC missions in the green water, support an increase in COCOM demand, or, after PC SLEP is begun, adequately support underway training and certification of crews deploying to PCs stationed in the Arabian Gulf. Additionally, the operation of USCG 110' WPBs, with a comparable operational profile to the PCs, mitigates the Navy's risk and fulfills patrol vessel mission requirements in the Arabian Gulf theater of operation.

Several areas of overlap between Coast Guard Patrol Boat and Navy Patrol Coastal Ships exist due to similar operational, logistical and maintenance characteristics. Operationally, both assets are able to execute the same missions with some difference in speed, endurance and underway connectivity. The 110' WPB and Navy PC also have numerous maintenance and logistical commonalities including similar engine and hull designs. The Coast Guard PCs are maintained utilizing the existing Navy and Coast Guard infrastructure, procedures and engineering support at Navy and Coast Guard engineering facilities.

III. Report

A. HISTORY AND BACKGROUND

The CYCLONE Class Patrol Coastal ships (PCs) were originally classified as boats and designed as a replacement for the 65 ft MK III Patrol Boats used by Special Operations Command (SOCOM). The ships were procured as a modified non-developmental item (NDI) using commercial off the shelf (COTS) design. The first 13 PCs were commissioned between 1993 and 1996, with PC 14 commissioned in 2000. The U.S. Special Operations Command was the original resource sponsor for the 14 CYCLONE Class PCs. In 2000 PC 1, was transferred to the Coast Guard. Of the remaining thirteen PCs, four were homeported in San Diego, CA and nine were homeported in Little Creek, VA.

After the events of September 11, 2001 the PCs proved particularly well suited for maritime homeland security operations and were employed jointly with the Coast Guard to help protect U.S. ports, waterways and coastline. In October 2002, resource sponsorship for the PCs shifted to the Chief of Naval Operations, Surface Warfare Division. The 13 PCs were operated with the primary employment of coastal patrol, surveillance, and interdiction operations, with a secondary employment of Naval Special Warfare Support. The Navy provided one Navy PC to operational control of the Coast Guard in the Pacific Northwest through rotating deployments to support high value unit escorts. When needed, Navy PCs also operated under operational control of the Coast Guard to fulfill Homeland Security requirements for major ports on the U.S. east and west coasts. In 2004, PC 1 was sold to the Republic of the Philippines.

In July 2004, the Navy and the Coast Guard signed a MOA transferring custody and operational control of four PCs to the Coast Guard from October 1, 2004 until September 30, 2008. This MOA was amended in January 2005 to add a fifth PC to Coast Guard custody effective October 1, 2005 with the same terms as the original MOA. PCs 4, 8, 13 and 14 were transferred to the Coast Guard in 2004 and PC 2 was transferred in 2005. The PCs transferred to the Coast Guard were those that had received a modernization package that included hull stiffening and an improved boat ramp. The Navy's original plan had been to decommission all of the remaining PCs that had not received the modernization package.

In 2005, the Navy's decommissioning plan was changed for the remaining eight PCs under Navy control due to a request for PCs in the CENTCOM AOR to fulfill new requirements in the Arabian Gulf in support of Operation Iraqi Freedom. In 2005, four PCs (PC 5, 6, 9, and 10) were moved to Bahrain and a fifth PC (PC 11) was moved there in 2006. The five PCs in Bahrain are homeported there and Navy crews rotate from CONUS on 185 day deployments to man them. There are a total of thirteen Navy PC crews. The Navy kept three PCs (3, 7 and 12) in CONUS to support underway training and certification for the rotating crews deploying to CENTCOM. Due to the decision to retain the PCs under Navy control, the hull strengthening and ramp improvement modernization package was performed on the remaining eight PCs. The modernization was funded with Cost of War funds and the last PC will complete the modernization in 2007. The current disposition of PCs is that the Coast Guard has custody of five, split between San Diego CA and Pascagoula MS, and the Navy has custody of eight, split between Manama, Bahrain and Little Creek, VA.

In January 2007, the Navy and Coast Guard agreed that the MOA would be amended again to extend the three of the five PCs in Coast Guard custody for an additional three years until 30 September 2011. The other two PCs would be returned to the Navy on or about 30 September 2008 in accordance with the original MOA. A draft copy of this addendum is currently in routing through the Coast Guard and Navy chains of command.

B. MISSION REQUIREMENTS FOR COAST GUARD PATROL BOATS AND NAVY PATROL COASTAL SHIPS THROUGH 2012.

1. Coast Guard Patrol Boats

The Required Operational Capabilities and Projected Operational Environment for the WPB 110' Island Class Patrol Boat are defined in OPNAV Instruction 3501.183A and COMDT Instruction 3501.27A. These instructions state that the 110' WPB mission is to operate offensively in a low to medium intensity, multi-threat environment as a surveillance and interdiction platform, conducting general law enforcement, and enforcing the Exclusive Economic Zones of the United States. These missions include, but are not limited to, Marine Environmental Protection; Ports, Waterways and Coastal Security; Alien Migrant Interdiction Operations; Maritime Law Enforcement; Marine Interdiction Operations; Theater Security Cooperation; and National Defense. The 87' Coastal Patrol Boat operates under the same mission profile as the 110' WPB and provides similar, but reduced, domestic operational capabilities.

The Coast Guard's forty-one 110' WPBs conduct operations throughout the United States, U.S. territories in Guam and the U.S. Virgin Islands, the Caribbean Sea and Southwest Asia regions.

The five Coast Guard PCs play a vital role in keeping non-U.S. citizens from entering the United States by sea. Since 2004, the Coast Guard PCs have interdicted over 400 migrants, made 23 arrests, and seized seven vessels and over 16,958 lbs (8.47 tons) of illegal contraband. The three Coast Guard PCs assigned to the Atlantic Area are programmed for 18.5% of the Patrol Boat Operational Hours (179' WPC and 110' WPB) in the Coast Guard Seventh District's Area of Responsibility in the southeastern United States. The two Pacific Southwest PCs are programmed for 69.4% of the patrol boat hours (179' WPC and 110' WPB) in the Coast Guard Eleventh District's Area of Responsibility in the southwestern United States.

The Coast Guard PCs have greater capabilities than the 110' WPBs, including increased speed, endurance, stern launch facilities and tactical communications. The Coast Guard PCs can sustain speeds of up to 35 knots vice the 30 knot maximum of the 110' WPB and offer increased endurance with the ability to remain underway for 7-10 days. The PCs are also equipped with a stern launched small boat. The stern launch is safer in certain sea states and allows for a quicker small boat launch with reduced manning requirements. The Coast Guard PCs have more electronic capabilities than the regular patrol boats and all have access to classified and regular network connectivity while underway. Other PC 179 C4ISR capabilities include the Officer in Tactical Command Information Exchange System (OTCIXS), which allows the cutter to directly view the Common Operational Picture (COP) network from onboard the ship at sea.

The only capability shortfall the PC has in comparison to the 100' WPB is migrant holding capacity. Due to stability and engineering concerns, the maximum number of migrants a PC can hold is 100, vice 150 for the 100' WPB.

2. Navy Patrol Coastal Ships

General mission requirements for Navy Patrol Coastal Ships are defined in the Required Operational Capabilities and Projected Operational Environment (ROC/POE) for the PC 1 CYCLONE Class ships. This instruction states that the PC 1 Class patrol ship's mission is to conduct coastal patrol and interdiction operations; to conduct barrier surveillance operations; to support operations other than war that may include, but are not limited to, homeland defense, non-combatant evacuation operations, law enforcement operations in conjunction with embarked Coast Guard law enforcement detachment and maritime intercept operations. The primary mission areas for the PC class ship are Command, Control, and Communications (CCC); Mobility; Missions of State; and Non-Combat Operations.

For the near term, the primary mission of the Navy PCs is expected to remain unchanged -- supporting the CENTCOM requirement for a full-time presence of five PCs. It is expected that five Navy PCs will continue to be homeported in Manama, Bahrain operating in the CENTCOM Area of Operations. These five PCs are in high demand and are currently operating an average of 21-25 days per month conducting the following operations:

- Protecting Iraqi Oil Platforms
- Conducting MIO
- Conducting Escort Operations in the Arabian Gulf
- Conducting TSC with Gulf Coalition Countries

Since 2001, PCs in the Arabian Gulf have conducted operations with numerous local countries, including Qatar, Kuwait, Saudi Arabia, and Iraq. The PCs are comparable in size to many of the vessels operated by regional emerging navies and have proven to be outstanding platforms for TSC. CENTCOM PCs have also operated outside the Arabian Gulf off the coasts of Yemen and Somalia.

An unclassified excerpt from a CENTCOM message on PC capabilities states that, "PCs provide vital capability to CENTCOM AOR. From protection of critical Iraqi economic infrastructures to TSC to Expanded Maritime Interdiction Operations (EMIO) in support of GWOT, PCs operate in every part of the CENTCOM AOR. Their speed, agility, and shallow draft allow them to go where other ships cannot and their size is ideal to conduct TSC missions with regional partners to foster a relationship by sharing a common mission and experience. There is no existing or developing platform in the U.S. Navy that has the unique combination of capability and skills provided by PCs."

The remaining three Navy PCs will continue to be homeported in Little Creek, VA. and barring a change in operational requirements, the two PCs returning from the Coast Guard on September 30, 2008 are expected to join them. These PCs will continue to be the training platforms for the thirteen Navy PC crews who rotate to the forward deployed PCs. In addition, these CONUS PCs are available to surge to assist with emergency National tasking in support of Maritime Homeland Security requirements or any additional COCOM request for forces.

The PCs have a unique green water capability that has become more prominent as the GWOT has evolved in recent years. Green water is defined as that very shallow water-space between the brown water occupied by Riverine forces and the deeper blue water occupied by deeper draft surface ships. Many of the current and expected future operations, such as maritime security operations in support of GWOT, and cooperative engagement with partner maritime countries, occur in this very shallow water. The POM 08 Warfighting Capability Plan established green water operations as a required mission. The top capability requirement for craft in this area is to conduct TSC with developing nations' navies. Secondary requirements for these craft are Information, Surveillance, and Reconnaissance (ISR), MIO, Maritime Domain Awareness (MDA), Anti-Terrorism/Force Protection (AT/FP), Law Enforcement Operations, and limited Humanitarian Assistance.

In the recent OPNAV Global War on Terrorism Campaign study, the Navy developed the maritime missions, operational tasks, and capabilities required in green water. The most highly demanded mission requirements were:

- TSC/ Coalition Operations
- Maritime Domain Awareness
- Maritime Interdiction Operations

The analysis determined that the Navy PCs are the only Navy owned forces that currently can meet these mission requirements in green water. The USCG 110' WPBs, with a compatible operational profile to the PCs, also meet the mission requirements in green water.

C. PROGRAM PLAN AND ALTERNATIVES TO MEET COAST GUARD DEEPWATER PATROL BOAT REQUIREMENTS THROUGH 2012

The Coast Guard has taken the following actions to meet its patrol boat requirements through 2012.

- The Commandant of the Coast Guard has approved a plan to multi-crew eight Seventh District 110' WPBs with the crews and funding from the 123' WPBs which were taken out of service due to severe hull degradation.
- An amended Coast Guard-Navy PC MOA is under development for three 179 PCs to remain under the operational control of the Coast Guard through FY11 (additional three years).
- Increase the programmed hours of the Coast Guard's 110' WPB fleet by 400 hours from 1800 to 2200 hours (not including the patrol boats in the Arabian Gulf and Seventh District).
- Increase the programmed hours of the 87' CPB fleet by 200 hours from 1800 to 2000 hours.
- Procure four additional 87' CPBs (including homeporting determination) to minimize the impact to the southern Florida AOR.
- Explore leasing other vessels which have WPB-like capabilities.
- Modify the 110' patrol boat Maintenance Effectiveness Project (MEP) execution plan to provide additional operational hours during critical periods.

The Deepwater Program is expected to provide patrol boat hulls in 2010.

- The first Fast Response Cutter (FRC-B) is estimated to be delivered in 2010 with eight of the planned twelve hulls delivered by the end of 2012.
- The first Fast Response Cutter (FRC-A) is estimated to be delivered in 2015.

D. PROGRAM PLAN AND ALTERNATIVES TO MEET NAVY PATROL COASTAL SHIP REQUIREMENTS THROUGH 2012

Based on GWOT campaign analysis, the Navy conducted the following studies to determine how best to fulfill the current need for Navy small combatant craft with the capability to perform Maritime Interdiction Operation, Theater Security Cooperation, and ISR missions.

- Center for Naval Analysis Joint Maritime Integration Study
- RAND analysis of Small Combatant Craft Alternatives

The CNA Joint Maritime Integration study identified options to address GWOT green water TSC. The RAND Small Craft Combatant Alternative analysis identified three craft options to fill the TSC requirement based on key capabilities. These three options were:

- Near Shore Patrol Vessel (<100 tons)
- Coastal Patrol Vessel (300-700 tons)
- Offshore Patrol Vessel (approx 1500 tons)

These three options were assessed against identified missions, tasks, and key required capabilities. After the initial analysis, RAND concluded that the best option would be to focus on the Coastal Patrol vessel and Offshore Patrol vessel in the second part of the analysis where five options were examined:

- Coastal Patrol Vessel
  - Option 1: Coast Guard Deepwater Fast Response Cutter Program
  - Option 2: New Construction Vessel
  - Option 3: Navy PCs
- Offshore Patrol Vessel
  - Option 4: Littoral Combat Ship
  - Option 5: Coast Guard Deepwater Program

Based on these options, RAND concluded that the most capable and cost effective near term (to 2012) option was the Navy PC.

These studies identified a valid requirement for Navy small combatant craft. The most cost-effective solution to meet that requirement is to extend the service life of the current PCs. As part of the Fiscal Year 2008 President's Budget request, the Navy developed a PC service life extension program designed to extend the service life of PCs by ten years to 2023-2026. The program modernizes one PC per year, beginning in FY 2009. PCs loaned to the Coast Guard

will not be modernized until after their return to the Navy. The PC Life Extension Program is comprised of the following:

- Replacement of Main Propulsion Diesel Engines
- Replacement of Ship Service Diesel Engines
- Radar replacement
- Communication Suite upgrades
- Reverse Osmosis replacement
- Weapons System upgrade
- Electronic Warfare Suite Upgrade

The analysis to date has also demonstrated that there is a likely demand for PC capability in other regions besides CENTCOM and that demand is likely to grow. A more in-depth analytical assessment is being conducted as part of the Fiscal Year 2009 President's Budget development process to determine what the expected demand for Navy small combatant craft in 2020 will be.

E. IMPACT TO NAVY OPERATIONAL REQUIREMENTS IF THE PATROL COASTAL SHIPS CURRENTLY BEING OPERATED BY THE COAST GUARD REMAIN WITH THE COAST GUARD TO SUPPORT THE COAST GUARD MISSION

When the significance of the impact of the Coast Guard 123' WPB delays on the Coast Guard Patrol Boat Operational Hour Requirement became apparent, the Chief of Naval Operations directed his staff to assess available options regarding the return of the PCs on loan to the Coast Guard. Three options were assessed in a coordinated effort by the Fleet Forces Command and OPNAV staffs.

- Option One: Return all PCs to the Navy in September 2008 in accordance with the existing MOA.
  - Benefit: Maximum flexibility for Navy to utilize PCs beyond existing CENTCOM requirements, crew rotations, CONUS crew training and Service Life Extension Program (SLEP).
  - Drawback: Would not help the Coast Guard mitigate the WPB 123' operational shortfall.
- Option Two: Extend the MOA for some of the five PCs with the Coast Guard
  - Benefit: Partially supportive of the Coast Guard operational shortfall, increased flexibility for Navy to utilize PCs beyond existing CENTCOM requirements, crew rotations, CONUS crew training and Service Life Extension Program.
  - Drawback: Disruptive to Fleet Forces Command plans for utilizing returned PCs.
- Option Three: Extend the MOA for all five PCs with the Coast Guard
  - Benefit: Totally supportive of Coast Guard operational shortfall.
  - Drawback: Negative impact on deployed Navy PC crew proficiency due to training hull reduction when PC SLEP begins. No capability to address changes in Navy operational requirements.

Option Two was assessed as providing the best balance between Navy and Coast Guard requirements. The Navy and Coast Guard have agreed to amend the existing MOA to extend the loan of three of the five PCs to the Coast Guard until September 2011. These three PCs are part of the current plan to meet Coast Guard Patrol Boat Operational Hour Requirements. The remaining PCs would be returned to the Navy on September 30, 2008 in accordance with the original MOA. The Navy and Coast Guard are currently cooperating in drafting an amended MOA.

Although the demand for Navy small combatant craft to conduct TSC missions is growing, the current Navy requirement is only to provide five PCs to CENTCOM. The Navy determined that it could take short-term risk in the number of Navy PCs to support the Coast Guard near-term shortfall. The return of two PCs from the Coast Guard to the Navy will allow the CENTCOM requirement to be met as well as provide flexibility to support increases in the Navy operational requirement and ensure adequate crew underway training and successful execution of PC SLEP.

The impact to Navy operational requirements if none of the PCs loaned to the Coast Guard are returned is that there would be no assets available to complete any expanded TSC missions in green water or support any increase in COCOM demand beyond the five that are currently operating in CENTCOM. Underway training and certification of crews deploying to PCs stationed in the Arabian Gulf would also significantly decrease with the reduction in the number of training platforms from three to two in order to support PC SLEP.

F. AREAS OF OVERLAP BETWEEN THE COAST GUARD'S PATROL BOAT REQUIREMENTS AND THE NAVY'S PATROL COASTAL SHIP REQUIREMENTS IN TERMS OF LOGISTICS, OPERATIONS, AND MAINTENANCE

Several areas of overlap exist between Coast Guard Patrol Boat and Navy Patrol Coastal Ships due to similar operational, logistical and maintenance characteristics. Operationally, both assets are able to execute the same missions with the 110' WPBs limiting factors being speed, endurance and underway connectivity. As previously mentioned, the PC is faster (5+ knots) and can remain at sea longer (2-3+ days) than the 110' WPB. Additionally, the PCs underway connectivity and superior command and control capabilities link it "real time" to the Coast Guard and Navy's Common Operational Picture (COP).

The 110' WPB and Navy PC also have numerous maintenance and logistical commonalities, including similar engine and hull designs. The Coast Guard PCs are maintained utilizing the existing Navy and Coast Guard infrastructure and procedures at Navy and Coast Guard engineering facilities. The Navy provides annual funding for operation, maintenance costs and Navy engineering support representatives. The Coast Guard has overall responsibility for configuration management, but the Navy has representation in all configuration changes that impact mission accomplishment, operational concerns, and overall cost. At the unit level, the PCs utilize Coast Guard and Navy engineering support (funding and personnel) to repair equipment casualties, whether in homeport or deployed, with no significant parts, labor or logistical delays due to seamless collaboration between Coast Guard and Navy maintenance support organizations.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 17 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee report 109-452, the enclosed report provides information on the number of midshipmen participating in foreign language study at the Naval Academy, the languages in which they are enrolled, their levels of proficiency at graduation, and the foreign language classes offered. The report also describes the Naval Academy plans for expanding foreign language programs, provides an update on the current implementation of foreign language initiatives included in the FY 2007 budget request, and describes the costs required for the program expansion.

With the exception of a one-time expenditure of $10M for facilities modernization in FY 2007, the $3.2M sought for program expansion are an annual requirement reflected in the Future Years Defense Program. The Naval Academy is aggressively applying the additional funds to expand course offerings in the strategic languages, Arabic, Chinese, Japanese, and Russian, as well as increasing opportunities for summer and semester immersion study abroad.

The Naval Academy has reoriented its recruitment and admissions efforts to identify candidates with strong language skills. The Naval Academy remains committed to providing a sound foundation in science, mathematics and engineering for all its graduates, while maintaining the balance of technical and non-technical skill sets within the constraints of a four-year undergraduate curriculum.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 17 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee report 109-452, the enclosed report provides information on the number of midshipmen participating in foreign language study at the Naval Academy, the languages in which they are enrolled, their levels of proficiency at graduation, and the foreign language classes offered. The report also describes the Naval Academy plans for expanding foreign language programs, provides an update on the current implementation of foreign language initiatives included in the FY 2007 budget request, and describes the costs required for the program expansion.

With the exception of a one-time expenditure of $10M for facilities modernization in FY 2007, the $3.2M sought for program expansion are an annual requirement reflected in the Future Years Defense Program. The Naval Academy is aggressively applying the additional funds to expand course offerings in the strategic languages, Arabic, Chinese, Japanese, and Russian, as well as increasing opportunities for summer and semester immersion study abroad.

The Naval Academy has reoriented its recruitment and admissions efforts to identify candidates with strong language skills. The Naval Academy remains committed to providing a sound foundation in science, mathematics and engineering for all its graduates, while maintaining the balance of technical and non-technical skill sets within the constraints of a four-year undergraduate curriculum.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 17 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee report 109-452, the enclosed report provides information on the number of midshipmen participating in foreign language study at the Naval Academy, the languages in which they are enrolled, their levels of proficiency at graduation, and the foreign language classes offered. The report also describes the Naval Academy plans for expanding foreign language programs, provides an update on the current implementation of foreign language initiatives included in the FY 2007 budget request, and describes the costs required for the program expansion.

With the exception of a one-time expenditure of $10M for facilities modernization in FY 2007, the $3.2M sought for program expansion are an annual requirement reflected in the Future Years Defense Program. The Naval Academy is aggressively applying the additional funds to expand course offerings in the strategic languages, Arabic, Chinese, Japanese, and Russian, as well as increasing opportunities for summer and semester immersion study abroad.

The Naval Academy has reoriented its recruitment and admissions efforts to identify candidates with strong language skills. The Naval Academy remains committed to providing a sound foundation in science, mathematics and engineering for all its graduates, while maintaining the balance of technical and non-technical skill sets within the constraints of a four-year undergraduate curriculum.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 17 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 House Armed Services Committee report 109-452, the enclosed report provides information on the number of midshipmen participating in foreign language study at the Naval Academy, the languages in which they are enrolled, their levels of proficiency at graduation, and the foreign language classes offered. The report also describes the Naval Academy plans for expanding foreign language programs, provides an update on the current implementation of foreign language initiatives included in the FY 2007 budget request, and describes the costs required for the program expansion.

With the exception of a one-time expenditure of $10M for facilities modernization in FY 2007, the $3.2M sought for program expansion are an annual requirement reflected in the Future Years Defense Program. The Naval Academy is aggressively applying the additional funds to expand course offerings in the strategic languages, Arabic, Chinese, Japanese, and Russian, as well as increasing opportunities for summer and semester immersion study abroad.

The Naval Academy has reoriented its recruitment and admissions efforts to identify candidates with strong language skills. The Naval Academy remains committed to providing a sound foundation in science, mathematics and engineering for all its graduates, while maintaining the balance of technical and non-technical skill sets within the constraints of a four-year undergraduate curriculum.

A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. As always, if I can be of further assistance, please let me know.

Sincerely,

William A. Navas, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Enclosure

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

Report to Congress on

The Current State of Foreign Language Programs

and

The Plans for Implementing

A Strategic Language Development Program at

The United States Naval Academy

PREPARED BY:
Superintendent, United States Naval Academy
121 Blake Road
Annapolis, MD 21402-5000

March 2007

Requirement

The FY 2007 House Armed Services Committee report 109-452 directed the Service Secretaries to report on the current state of language programs and the plans for implementing a strategic language development program at the United States Military Academy, the United States Naval Academy, and the United States Air Force Academy. In consultation with the superintendents of each academy, the secretaries should provide data on the number of students participating in language training, the languages in which they are participating, levels of proficiency, and language classes offered. In addition, the superintendents should identify their plans for expanding foreign language programs, provide an update on their current implementation of the language initiatives included in the fiscal year 2007 budget request, and describe the costs required for the programs.

Current state of language programs

The Language Studies Department at the U.S. Naval Academy offers courses in seven foreign languages: Arabic, Chinese, French, German, Japanese, Russian, and Spanish. As of fall 2007, four years after the initiation of the Arabic program, courses at four curricular levels will be offered in all seven languages.

Midshipmen enrolled in any academic major may simultaneously pursue a minor in any of the seven languages, attaining a degree of proficiency that varies according to the difficulty of the language and the midshipman's background. For example, midshipmen entering USNA often have prior course work in French, German, or Spanish. This allows them to enroll in upper-level courses and attain a high degree of proficiency by graduation. Very few entering midshipmen have backgrounds in Arabic, Chinese, Japanese, or Russian. Given the engineering of the USNA curriculum, most midshipmen begin these languages in their second year, and can only complete six semesters of study. This allows them to earn a minor, but at a lower proficiency level than midshipmen studying more commonly taught languages.

Midshipmen who have completed four semesters of any of these languages may participate in a summer study abroad program in a country in which their selected language is spoken.

In summer 2006, strategic language courses were opened up to a limited number of midshipmen in their first year. It is expected that some of these midshipmen will major in the two newly established majors, Arabic and Chinese.

Plans for implementing a strategic language development program

The Naval Academy received supplementary funding in Fiscal Year 2007, which permitted the Academy to enhance its strategic language program significantly. Eight new full-time faculty members were hired to expand access to strategic or potentially strategic languages (Arabic, Chinese, Japanese, and Russian). Two faculty members were hired in each of these four languages. During summer 2006, a new study abroad program was established in Cairo, Egypt, for the first group of midshipmen to complete four semesters of Arabic. Study abroad programs are also offered in China, Japan, France, Germany, Mexico, Russia, and Spain.

With the start of academic year 2006-2007, fall semester enrollment in courses in the four strategic languages changed as follows:

Arabic: increased from 52 to 134 students
Chinese: increased from 53 to 132 students
Japanese: increased from 86 to 110 students
Russian: decreased slightly from 70 to 64 students.

In March 2007, the Language Studies Department hired an additional Chinese instructor and is in the process of hiring an additional Arabic instructor, as well as a curriculum development/ assessment specialist. This will allow the department to accommodate more students in both Arabic and Chinese in fall 2007.

The Language Study Abroad Program for summer 2007 will increase the number of participants from 102 to 150, with a new program in Chile, an additional six-week program in China, and two additional programs in Japan, as well as the ongoing programs mentioned in the first paragraph of this section. One of the new programs in Japan is an engineering internship at JAXA, the Japanese space agency.

The Naval Academy's Language Studies Department is currently housed in Nimitz Library. Minor renovation of the building is planned for spring 2008 to provide additional classrooms, additional faculty offices, and two new state-of-the-art language laboratory/testing facilities.

Number of students participating in language training:

Fall 2006: 1199
Spring 2007 1118.

Number of students participating in strategic language training (Arabic, Chinese, Japanese, Russian):

Fall 2006 440
Spring 2007 367.

[Note: for a variety of structural reasons, including prior validation and curricular access to elective language courses for midshipmen majoring in technical subjects, fall enrollments tend to be slightly greater than those in the spring semester.]

Midshipman enrollment in foreign language study, by language, Academic Year 2006-2007:

	Fall	Spring
Arabic:	134	105
Chinese:	132	99
French:	177	153
German:	88	77
Japanese:	110	101
Russian:	64	62
Spanish:	482	474.

Levels of foreign language proficiency: Prior to the 2006-2007 Academic Year, the Defense Language Proficiency Test (DLPT) was offered on a voluntary basis. In spring 2006, most midshipmen in third- or fourth-year courses in strategic languages did not elect to take the test. Midshipmen in the commonly taught languages who did take the DLPT had the following results:

French: 4 midshipmen earned at least 2/2 (listening/reading)

German: 5 midshipmen earned at least 2/2 (listening/reading)

Spanish: 40 midshipmen earned at least 2/2 (listening/reading): of whom 12 earned 3/3.

The Defense Language Proficiency Test will be offered on several different dates in spring 2007 to midshipmen in the Class of 2007 who have enrolled in advanced foreign language study (third year or higher).

Language classes offered (all taught in the target language except where noted):

Arabic:

FA101-102	*Basic Arabic I and II*
FA201-202	*Intermediate Arabic I and II*
FA301-302	*Advanced Arabic I and II*
FA350	*Window on Arabic Culture*
FA 486A	*Readings in Classical Arabic*
FA 486B	*Arabic Literature and Film*

New courses approved for Academic Year 2007-2008:

FA325	*Media Arabic*
FA342	*Arabic Dialect*
FA425	*Arabic Discourse in Society*
FA426	*Modern Arabic Literature*

Chinese:

FC101-102	*Basic Chinese I and II*
FC201-202	*Intermediate Chinese I and II*
FC301-302	*Advanced Chinese I and II*
FC485-486	*Advanced Topics in Chinese I and II*

New courses approved for Academic Year 2007-2008:

FC350	*Chinese Culture through Film*
FC360	*The Self and Modernity: Twentieth-Century Chinese Literature*
FC401-402	*Chinese Language and Culture I, II*
FC450	*Styles of Discourse in Chinese*
FC460	*Chinese in Media*

English as a Second Language

FX101-102	*English for Non-native Speakers*

French

FF101-102	*Basic French I and II*
FF201-202	*Intermediate French I and II*
FF301	*Advanced French I: Civilization Readings and Composition*

FF302	*Advanced French II: Introduction to Francophone Literatures and Cultures*
FF411	*Development of French Civilization*
FF412	*Modern France*
FF421	*Representative Readings in French Literature I*
FF422	*Representative Readings in French Literature II*

New course proposed: La France et le monde arabe (France and the Arab World)

German

FG101-102	*Basic German I and II*
FG201-202	*Intermediate German I and II*
FG310	*Introduction to Contemporary Germany*
FG320	*Introduction to German Literature*
FG411	*Development of German Civilization*
FG412	*Modern Germany*
FG421	*Representative Readings in German Literature I*
FG422	*Representative Readings in German Literature II*

Japanese

FJ101-102	*Basic Japanese I and II*
FJ201-202	*Intermediate Japanese I and II*
FJ301-302	*Advanced Japanese I and II*
FJ302X	*Accelerated Advanced Japanese II*
FJ485-486	*Advanced Topics in Japanese I and II*

Russian

FR101-102	*Basic Russian I and II*
FR201-202	*Intermediate Russian*
FR330	*Third Year Russian I: Readings in Language and Culture*
FR340	*Third Year Russian II: Introduction to Poetry and Prose*
FR350	*Russian Literature and Culture in Translation* (offered in English)
FR411	*Development of Russian Civilization*
FR412	*Modern Russian*

Spanish

FS103-104	*Basic Spanish I and II (accelerated, not for true beginners)*
FS201-202	*Intermediate Spanish I and II*
FS301	*Advanced Spanish with Readings on Contemporary Spanish-American Culture*
FS304	*Advanced Spanish with Readings on Contemporary Spain*
FS412	*Contemporary Latin American Civilization*
FS413	*Spanish Civilization*
FS421	*Spanish Literature*
FS422	*Latin American Literature*

FS485-486 *Special Topics in Spanish and Latin American Literature and Culture*

Anthropology

FL286 *Cultural Anthropology for Military Application*

New course approved for Academic Year 2007-2008:

FL350 *Intercultural Communication*

Linguistics

FL220 *Principles of Language and Linguistics*

FL480 *Language Studies Research Seminar (Information Technology Capstone)*

Update on current implementation of the language initiatives included in the fiscal year 2007:

In addition to the initiatives listed above which include increased faculty and staff to support the growth in the strategic language development and enrollment, the Naval Academy has expanded aggressively the number of midshipmen who participate in summer language and cultural immersion programs, semester exchanges with foreign military academies and study abroad, professional training with cadets and midshipmen from foreign service academies, and greater participation in foreign academic conferences and orientations. The current projection for Academic Year 2006-2007 (as of March 2007), with a comparison from the prior academic year, includes:

	2007	2006
a. Language/Cultural Immersion:	165	109
b. Semester Exchange with foreign academies:	10	3
c. Professional training programs abroad	60	45
d. Foreign Academy reciprocal visits	25	18
e. Foreign conferences	40	25
f. Semester Study Abroad at civilian universities	8	0
Total	268	200

The total additional annual cost required for the expanded foreign language program at the Naval Academy is:

(1) Additional language faculty in strategic languages (Arabic, Chinese, Japanese, Russian) - $1.1M, annually;

(2) International program staff support - $.9M, annually;

(3) Increased language immersion - $1.2M, annually;

(4) Building renovation - $10M (already programmed for FY07 only).

SECNAV COORDINATION PAGE

Office/Dept	Point of Contact/Title	Phone	Date
ASN M&RA	YNC Dwight Scott	(703) 614-3053	04 Apr 07
N1	CDR William Zirzow	(703) 614-3945	30 Mar 07
N801	Mr. Bryan Bowen	(703) 614-8702	28 Mar 07
FMB-1	Ms. Julie Ross	(703) 697-1002	28 Mar 07
DONPIC	CAPT Douglas Waters	703-693-2965	04 Apr 07
OLA	CAPT Lindy Bunn	703-697-2776	05 Apr 07

COORDINATION PAGE

Office/Dept	Point of Contact/Title	Phone	Date
USNA	VADM Rodney P. Rempt Superintendent	(410) 293-1500	10 Apr 07
USNA	Maj Craig C. Clemans	(410) 293-1503	10 Apr 07

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 30 2007

The Honorable Dave Obey
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The House Appropriations Committee Military Quality of Life report 109-464 directed that the U.S. Navy submit a report to the Committee no later than 30 days after completion of the Draft Supplemental Environmental Impact Statement (DSEIS). The attached report explains how the SEIS addresses the deficiencies in the initial EIS that were identified by the courts, and how the Navy reconsidered alternative sites in cooperation with the State of North Carolina.

The DSEIS provides additional analysis of potential environmental impacts of construction and operation of an OLF at five alternative OLF sites while addressing the four FEIS deficiencies identified by federal district and appellate courts. The DSEIS is the culmination of 20 weeks of fieldwork and 12 technical reports produced through consultation with the U.S. Fish and Wildlife Service (Cooperating Agency), wildlife experts, and acoustic engineers. The Navy employed three noted waterfowl experts (PhDs) to provide technical expertise and independent peer review of the study. It is important to note that the Navy's underlying decision on F/A-18E/F basing was not challenged in court. Neither the District Court nor the Appellate Court found any deficiencies with the Navy's range of alternatives for an OLF. Therefore, the DSEIS re-examined the original home-basing alternatives for the OLF but did not revisit the original site screening process, as outlined in the FEIS and the OLF Siting Study, or expand the range of alternatives that had been approved by the courts. At the request of the Governor of North Carolina, the DSEIS did provide a more detailed discussion on alternative OLF sites, such as one in Carteret County, NC, that were initially considered but eliminated from detailed analysis.

Please do not hesitate to contact me if I can be any further assistance.

Sincerely,

BJ Penn

Attachment:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 30 2007

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
U.S. Senate
Washington, DC 20510

Dear Mr. Chairman:

The House Appropriations Committee Military Quality of Life report 109-464 directed that the U.S. Navy submit a report to the Committee no later than 30 days after completion of the Draft Supplemental Environmental Impact Statement (DSEIS). The attached report explains how the SEIS addresses the deficiencies in the initial EIS that were identified by the courts, and how the Navy reconsidered alternative sites in cooperation with the State of North Carolina.

The DSEIS provides additional analysis of potential environmental impacts of construction and operation of an OLF at five alternative OLF sites while addressing the four FEIS deficiencies identified by federal district and appellate courts. The DSEIS is the culmination of 20 weeks of fieldwork and 12 technical reports produced through consultation with the U.S. Fish and Wildlife Service (Cooperating Agency), wildlife experts, and acoustic engineers. The Navy employed three noted waterfowl experts (PhDs) to provide technical expertise and independent peer review of the study. It is important to note that the Navy's underlying decision on F/A-18E/F basing was not challenged in court. Neither the District Court nor the Appellate Court found any deficiencies with the Navy's range of alternatives for an OLF. Therefore, the DSEIS re-examined the original home-basing alternatives for the OLF but did not revisit the original site screening process, as outlined in the FEIS and the OLF Siting Study, or expand the range of alternatives that had been approved by the courts. At the request of the Governor of North Carolina, the DSEIS did provide a more detailed discussion on alternative OLF sites, such as one in Carteret County, NC, that were initially considered but eliminated from detailed analysis.

Please do not hesitate to contact me if I can be any further assistance.

Sincerely,

BJ Penn

Attachment:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

Report to House Appropriations Committee on Supplemental Environmental Impact Statement (SEIS) for the Introduction of the F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States

PREPARED BY:
Assistant Secretary of the Navy
(Installations and Environment)
1000 Navy Pentagon
Washington, D.C. 20350-1000

March 2007

Table of Contents

Section		Page
I.	Report Requirements	1
II.	Executive Summary	1
III.	Report	2
	a. Background	2
	b. Potential Impacts to Migratory Waterfowl and Pocosin Lake National Wildlife Refuge	3
	c. Impacts Associated with Surge Operations	5
	d. Identification and Evaluation of Mitigative Measures	5
	e. Cumulative Impacts of the Operation of the OLF and Other Military Uses of Airspace in North Carolina	6
	f. Additional Studies	6
	g. How the Navy Complied with Previous Direction to Fully Reconsider Alternative Sites in Cooperation with the State of North Carolina	6
	h. Report Conclusion	8

I. REPORT REQUIREMENTS

House Report 109-464 on the Fiscal Year 2006 Military Quality of Life and Veteran's Affairs and related Agencies Appropriations Bill requires the Navy provide the House Appropriation Committee a report detailing how the Supplemental Environmental Impact Statement (SEIS) addresses the deficiencies in the Final EIS (FEIS) as identified by the relevant court decisions. The report is due no later than 30 days after completion of the Draft SEIS (DSEIS), and shall include an explanation of how the Navy complied with the Committee's previous direction to reconsider alternative sites in cooperation with the State of North Carolina.

II. EXECUTIVE SUMMARY

The DSEIS provides additional analysis of potential environmental impacts of construction and operation of an Outlying Landing Field (OLF) at five alternative OLF sites in Northeastern North Carolina while addressing the four FEIS deficiencies identified by federal district and appellate courts: (1) potential impacts to migratory waterfowl and Pocosin Lakes National Wildlife Refuge (NWR); (2) impacts associated with surge operations; (3) identification and evaluation of mitigative measures; and (4) cumulative impacts of the operation of the OLF and other military uses of airspace in North Carolina.

The DSEIS is the culmination of 20 weeks of fieldwork and 12 technical reports produced through consultation with the U.S. Fish and Wildlife Service (Cooperating Agency), wildlife experts, and acoustic engineers. Additionally, the Navy employed three noted waterfowl experts (Ph.Ds) to provide technical expertise and independent peer review of the study. The Navy's decision to home-base eight Super Hornet fleet squadrons and the F/A-18 Fleet Replacement Squadron (FRS) at NAS Oceana and two Super Hornet fleet squadrons at MCAS Cherry Point was not legally challenged. Additionally, the Courts did not find deficiencies with the Navy's site screening process conducted to develop a range of alternatives for an OLF. Consequently, the Navy did not re-examine the original homebasing alternatives or the OLF site screening process as outlined in the FEIS and the OLF Siting Study. At the request of the Governor of North Carolina, the DSEIS did provide a more detailed discussion regarding alternative OLF sites, such as one in Carteret County, NC, that were initially considered but eliminated from detailed analysis.

In conclusion, the additional analysis conducted for the DSEIS takes the requisite "hard look" required under the National Environmental Policy Act (NEPA) and provides the decision maker the best available information to make an informed decision. The Navy is now proceeding with a public comment period on the DSEIS, and will conclude with a FSEIS and a subsequent Record of Decision.

III. REPORT

a. BACKGROUND

To address FEIS deficiencies identified by the courts, the DSEIS provides additional analysis of potential environmental impacts of construction and operation of an OLF at the five alternative OLF sites identified in the FEIS that support the homebasing of Super Hornet aircraft at NAS Oceana and MCAS Cherry Point. While the DSEIS focused on the four previously mentioned FEIS deficiencies identified by the Courts, additional analysis on Bird Aircraft Strike Hazard (BASH), impacts to wetlands and to threatened and endangered species was also conducted to ensure the Navy took the required "hard look" and met its obligations under NEPA.

To provide the Navy decision-maker with a comparative assessment of alternatives in accordance with the requirements of NEPA, the Navy re-evaluated the areas of concern identified by the courts for all of the proposed OLF site alternatives that support the home-basing of F/A-18 E/F aircraft at NAS Oceana and MCAS Cherry Point. Therefore, the five alternative OLF sites in Northeastern North Carolina that were evaluated in the FEIS to support the home-basing of the F/A-18 E/F at NAS Oceana and MCAS Cherry Point are considered in the DSEIS.

The DSEIS is the culmination of 20 weeks of fieldwork and 12 technical reports produced through consultation with the U.S. Fish and Wildlife Service (Cooperating Agency), wildlife experts, and acoustic engineers. The U.S Fish and Wildlife Service (USFWS) is the federal agency with expertise in migratory waterfowl and wildlife refuges, and as a result, is uniquely qualified to contribute to this study as a Cooperating Agency. USFWS participated in the over-wintering study as waterfowl observers, provided updated information on threatened and endangered species, and reviewed and commented on draft technical reports and the preliminary DSEIS.

Additionally, the Navy employed three noted waterfowl experts (PhDs) to provide technical expertise and independent peer review of the study. These experts were involved in all aspects of migratory waterfowl data collection and analysis. The Navy also conducted information briefings and meetings with state and local governments and the media.

It is important to note that the Navy's underlying decision on F/A-18E/F basing was not challenged in court. Additionally, neither the District Court nor the Appellate Court found any deficiencies with the Navy's range of alternatives for an OLF. Therefore the DSEIS re-examined the original home-basing alternatives for the OLF but did not revisit the original site screening process, as outlined in the FEIS and the OLF Siting Study, or expand the range of alternatives beyond that evaluated in the Final EIS. At the request of the Governor of North Carolina, the DSEIS did provide a more detailed discussion regarding alternative OLF sites, such as one in Carteret County, NC, that were initially considered but eliminated from detailed analysis.

The additional analysis conducted for the DSEIS takes the requisite "hard look" required under NEPA and provides the decision maker the best available information to make an informed decision.

b. POTENTIAL IMPACTS TO MIGRATORY WATERFOWL AND POCOSIN LAKES NATIONAL WILDLIFE REFUGE (NWR)

To evaluate the potential impacts to migratory waterfowl and Pocosin Lakes NWR, the Navy conducted an overwintering study, noise response experiments, extensive literature review, and comparative airfield analysis. For the overwintering study, a biologist was in the field for 20 weeks between October 2005 and March 2006, conducting ground and aerial surveys of migratory waterfowl at the three alternative OLF sites with significant waterfowl populations. In conjunction with the overwintering study, three noise flight tests with an F/A-18F aircraft were conducted at Site C to measure aircraft noise levels and waterfowl response to aircraft operations. *The results of these two studies are summarized in technical reports, 2005-2006 Overwintering Waterfowl Study and Summary of Waterfowl Noise Response Evaluations* respectively.

For the literature review, 42 articles in the scientific community that relate to research on the effects of aircraft noise on species of waterfowl were identified and reviewed. Each

article is summarized in technical report, *Review of Studies Related to Aircraft Noise Disturbance of Waterfowl* and includes: (1) salient conclusions from the study; (2) areas of scientific uncertainty and characterization of these uncertainties; and (3) relevance of the study to the relationship of aircraft operations to the waterfowl/wildlife populations in the vicinity of each of the five OLF sites. These studies were used to support an impact assessment of the construction and operation of an OLF on migratory waterfowl populations in Northeastern North Carolina.

For the comparative analysis of existing airfields in proximity to NWRs, information on aircraft operations, waterfowl population and distribution, and waterfowl foraging habitat in and around five operating airfields and two training ranges that closely resemble conditions at alternative OLF sites C and D was reviewed for efficacy of BASH management programs and the impact of aircraft operations on waterfowl. A study was completed to evaluate how overwintering and migrating populations of snow geese, tundra swans, and ducks in the vicinity of existing airfields and military ranges are affected by aircraft over flights and noise. One of the goals of the study was to determine how likely migratory waterfowl would respond to flight operations if an OLF is constructed in Northeastern North Carolina. The Navy conducted site visits and interviews with airfield managers and BASH management teams, and reviewed historical documentation, to include data from field observations and agriculture mapping studies. As a result, conceptual BASH management plans for each site were developed.

The conclusions from these studies indicate that aircraft operations have not negatively impacted the numbers of snow geese, tundra swans, and ducks that overwinter nearby operating airfields, and that aircraft operations are not severely restricted at any airfield/training range despite elevated BASH conditions. The results are summarized in technical report, *Comparative Airfield Analysis: Case Studies at Existing Military and Civilian Airfields and Military Training Ranges.*

USFWS has expressed disagreement with the conclusions reached from the Comparative Airfield analysis, and as such, the impact of the operation of the OLF on Pocosin Lakes NWR. Specifically, they assert that assessment of waterfowl behavior around airfields should have been restricted to comparisons to east coast airfields due to unique and biologically significant differences between waterfowl across the different flyways. A full explanation of USFWS positions and Navy responses is provided in Appendix C of the Draft SEIS.

c. IMPACTS ASSOCIATED WITH SURGE OPERATIONS

Surge operations are defined as a 50% increase in Field Carrier Landing Practice (FCLP) operations over a 30 day period, followed by 50% decrease in operations while forces are deployed. Requirements were compiled from exercise Summer Pulse 04, where four Atlantic Fleet Carrier Strike Groups (CSG) and associated airwings were deployed. Impacts were determined by recalculating noise levels at selected points of interest using operations data under normal, surge, and post-surge slow down conditions. The result was that surge operations increase intensity in the short term, but do not increase the overall number of operations, do not have a significant effect on noise equivalent sound level values, and do not affect average noise contours.

d. IDENTIFICATION AND EVALUATION OF MITIGATIVE MEASURES

The Navy identified several measures to mitigate the impacts of construction and operation of the OLF. First, flight tracks were revised at the alternative OLF sites to avoid population centers and sensitive ecological areas to the extent possible without degrading training quality. Secondly, Class D airspace at the alternative OLF sites was identified in order to minimize potential for conflicts with other aviation operations. Third, Navy will work with U.S. Army Corps of Engineers to develop appropriate wetland mitigation plans if needed. Although not required by the Courts, additional work was conducted on wetlands, and included site assessments of the wetland hydrology and soils on each site to verify National Wetland Inventory maps of wetland areas at each alternative OLF site. The results of this study are summarized in technical report *OLF Wetland Mapping Project*. Navy will consult with USFWS on the red wolf, and will also work with USFWS to ensure access to Navy property to manage the red wolf populations. Navy will also commit to two full-time natural resource specialists to manage the BASH program and to implement a comprehensive integrated natural resources management plan at the OLF site identified in the Record of Decision. Finally, the land acquisition strategy was revised to reduce impacts on the local community and community economics by placing greater reliance on acquisition of easement interests instead of full fee title, enabling a significant reduction in the number of current residents subject to mandatory relocation.

e. **CUMULATIVE IMPACTS OF THE OPERATION OF THE OLF AND OTHER MILITARY USES OF AIRSPACE IN NORTH CAROLINA**

Navy conducted a cumulative airspace use study of the OLF and all current and proposed airspace uses in Northeastern North Carolina, to include a cumulative noise impact study of operations at OLF Site C and the proposed GUNNY Military Operating Area (MOA). The study found no cumulative noise impact on underlying NWRs and no cumulative noise impact on communities. Results of this study are included in technical report *Analysis of Cumulative Airspace Use in Eastern North Carolina.*

f. **ADDITIONAL STUDIES**

In addition to the specific studies detailed above, the following studies were also conducted to support the development of the DSEIS: *Results of the Historical Waterfowl Population and Distribution Data Collection Effort; OLF Ambient Soundscape Characterization; Assessment of Potential Foraging Habitat and Crop Mapping; Mobile Avian Radar System Monitoring Program and Data Analysis Report for Fall 2003/Winter 2004, OLF Washington County, North Carolina; Analysis of Acoustical Environment for Proposed OLF sites in Eastern North Carolina; and BASH Assessments and Conceptual BASH Plans.* These additional studies contributed to the overall analysis and conclusions reached in the DSEIS.

g. **HOW THE NAVY COMPLIED WITH PREVIOUS DIRECTION TO FULLY RECONSIDER ALTERNATIVE SITES IN COOPERATION WITH THE STATE OF NORTH CAROLINA.**

The five alternative OLF sites in Northeastern North Carolina that were evaluated in the Final EIS to support the home-basing of the F/A-18 E/F (Super Hornet) Aircraft at NAS Oceana and MCAS Cherry Point were re-evaluated in the SEIS. The reason for doing so is to provide the Navy decision-maker with the additional analysis required by the court in the form of a comparative assessment of reasonable alternatives that support the home-basing of F/A-18 E/F aircraft at NAS Oceana and MCAS Cherry Point, and is consistent with NEPA. The court decisions invalidated neither the methodology the Navy used nor the results the Navy obtained in arriving at its reasonable range of alternatives, and as long as those alternatives are given a hard look and evaluated in a comparative fashion, the requirements of NEPA are met.

On February 23, 2004, the North Carolina Governor's office announced the formation of a study group charged with examining and reporting on the strategic, environmental, and economic impacts of the proposed OLF in North Carolina. The study group also addressed the issue of alternative OLF sites. The Navy agreed to participate as technical advisors to address questions and concerns generated in the course of the review. Participation by the Navy included the Commander, Navy Facilities Engineering Command and the Commander, Navy Region Mid-Atlantic. The OLF study group met eight times over a 12-week period in early 2004, with the Navy providing representatives to each of these meetings, participating openly as a source of information throughout this process.

In April 2005 the Navy was provided a draft report prepared by the Governor's OLF study group for review and comment. A response was provided in May 2005, but the Navy did not receive any further feedback from the State of North Carolina on this report.

One of the key recommendations from the study group concerning alternative OLF sites was Open Grounds Farm in Carteret County. Open Grounds Farm is an approximately 40,000-acre commercial farm located 18 Nautical Miles (NM) east of MCAS Cherry Point and 120 NM south of NAS Oceana. At the request of the Governor of North Carolina, the Navy re-examined Open Grounds Farm and in several meetings with the Governor and his staff in May 2004, May 2005, and October 2005 provided briefings detailing why Open Grounds Farm is not a feasible alternative. Specifically, Open Grounds Farm was eliminated during the airspace evaluation phase of the OLF Siting Study due to significant conflicts with existing operations at Bombing Target (BT)-11 (Piney Island), and because it is within restricted airspace R-5306A. The Open Grounds Farm is within three miles of the safety zone surrounding the BT-11 target area, and as such, operations at the OLF site could not be conducted simultaneously with operations of BT-11. OLF operations may also be constrained by operations within R-5306A.

Additional sites reconsidered during the SEIS process but still determined to be unreasonable alternatives were MCOLF Oak Grove in Jones County, North Carolina, and Ft. Pickett Army National Guard Maneuver Training Center in Nottoway County, Virginia. A more detailed description and further explanation as to why these three sites are not reasonable alternatives is provided in the DSEIS.

The Navy also coordinated with other State agencies during development of the DSEIS. The Navy conducted an agency information meeting in New Bern, North Carolina in July 2005 with Federal and State agencies. Agency participation from the State of North Carolina included the North Carolina Division of Coastal Management, the North Carolina Department of Environment and Natural Resources, and the North Carolina Wildlife Resources Commission. The meeting was held to provide an overview of the project, including a description of the Final EIS and the OLF Siting Study, areas of concern identified by the District Court, the SEIS process, and the Navy's technical approach for addressing the areas of concern in the SEIS. Follow-on meetings were held in December 2005 and March 2006. These follow-on meetings updated participating Federal and State agencies, to include those State agencies mentioned above, on the progress of the SEIS since the previous meeting and facilitated the exchange of technical ideas and information. North Carolina state agency participation in these meetings resulted in the Navy updating the Coastal Zone Consistency Determination and addressing Clean Water Act Section 401/404 permit requirements.

Finally, the Navy worked with the county governments of Perquimans, Bertie, Washington, Hyde, Craven, and Beaufort Counties to update residential development, roadway and infrastructure improvements, commercial developments, economic impact data, land values, and location of new schools and churches within the counties since completion of the Final EIS.

h. REPORT CONCLUSION

The DSEIS provides the required additional analysis of the environmental consequences of construction and operation of an OLF to address court identified deficiencies in the FEIS. The DSEIS also addresses the issue of alternative sites considered but not included in the FEIS, and the reasons they are not reasonable alternatives. The DSEIS is the culmination of 20 weeks of fieldwork and 12 technical reports produced through consultation with the U.S. Fish and Wildlife Service (Cooperating Agency), wildlife experts, and acoustic engineers. This additional analysis, focused on the five alternative OLF sites identified in the FEIS, takes the "hard look" required under NEPA, and provides the decision maker the best available information to make an informed decision.

The USFWS acknowledges that they could not identify any additional information that could be brought to bear on the issue and placed before decision-makers prior to solicitation of public

comment. USFWS indicated in a recent public hearing on the DSEIS that they did not agree with the Navy's conclusions regarding impacts on waterfowl and the wildlife refuge at Site C. The Navy will fully consider this and all other comments received during the public comment period, and will respond to such comments in the Final SEIS.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 11 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2004 Defense Appropriations Conference Report, H. Rep. No. 108-283, the enclosed report provides the Early Operational Assessment for the Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) Program. The 2006/2007 Department of Navy Strike DIRCM Analyses of Alternatives (AoA) is being used to evaluate the feasibility of establishing a program of record that would install TADIRCM technology in naval strike fighter aircraft such as the F/A-18 Type Model Series. The AoA is currently underway.

Although the enclosed report is unclassified, please note that it is marked with a distribution statement to denote that it contains sensitive test and evaluation information. The Department of Navy so marked the report to protect results of the test and evaluation of TADIRCM, the disclosure of which outside the United States Government may cause unfair advantage or disadvantage to the manufacturer of TADIRCM products. Accordingly, I request that you handle the report with appropriate care, for instance by not disclosing the information in any reports disseminated outside of the United States Government.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As Stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 11 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2004 Defense Appropriations Conference Report, H. Rep. No.108-283, the enclosed report provides the Early Operational Assessment for the Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) Program. The 2006/2007 Department of Navy Strike DIRCM Analyses of Alternatives (AoA) is being used to evaluate the feasibility of establishing a program of record that would install TADIRCM technology in naval strike fighter aircraft such as the F/A-18 Type Model Series. This AoA is currently underway.

Although the enclosed report is unclassified, please note that it is marked with a distribution statement to denote that it contains sensitive test and evaluation information. The Department of Navy so marked the report to protect results of the test and evaluation of TADIRCM, the disclosure of which outside the United States Government may cause unfair advantage or disadvantage to the manufacturer of TADIRCM products. Accordingly, I request that you handle the report with appropriate care, for instance by not disclosing the information in any reports disseminated outside of the United States Government.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As Stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 11 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear. Mr. Chairman:

As directed by the Fiscal Year 2004 Defense Appropriations Conference Report, H. Rep. No. 108-283, the enclosed report provides the Early Operational Assessment for the Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) Program. The 2006/2007 Department of Navy Strike DIRCM Analyses of Alternatives (AoA) is being used to evaluate the feasibility of establishing a program of record that would install TADIRCM technology in naval strike fighter aircraft such as the F/A-18 Type Model Series. This AoA is currently underway.

Although the enclosed report is unclassified, please note that it is marked with a distribution statement to denote that it contains sensitive test and evaluation information. The Department of Navy so marked the report to protect results of the test and evaluation of TADIRCM, the disclosure of which outside the United States Government may cause unfair advantage or disadvantage to the manufacturer of TADIRCM products. Accordingly, I request that you handle the report with appropriate care, for instance by not disclosing the information in any reports disseminated outside of the United States Government.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As Stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 11 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2004 Defense Appropriations Conference Report, H. Rep. No. 108-283, the enclosed report provides the Early Operational Assessment for the Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) Program. The 2006/2007 Department of Navy Strike DIRCM Analyses of Alternatives (AoA) is being used to evaluate the feasibility of establishing a program of record that would install TADIRCM technology in naval strike fighter aircraft such as the F/A-18 Type Model Series. This AoA is currently underway.

Although the enclosed report is unclassified, please note that it is marked with a distribution statement to denote that it contains sensitive test and evaluation information. The Department of Navy so marked the report to protect results of the test and evaluation of TADIRCM, the disclosure of which outside the United States Government may cause unfair advantage or disadvantage to the manufacturer of TADIRCM products. Accordingly, I request that you handle the report with appropriate care, for instance by not disclosing the information in any reports disseminated outside of the United States Government.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As Stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

ON

TACTICAL AIRCRAFT DIRECTED INFRARED COUNTERMEASURES (TADIRCM) PROGRAM EARLY OPERATIONAL ASSESSMENT (EOA)

Prepared by:
Department of the Navy
Chief of Naval Operations (N880C11)
2000 Navy Pentagon (5D453)
Washington, DC 20350-2000

August 2007

BACKGROUND

The Fiscal Year 2004 Defense Appropriations Conference Report 108-283 provided $12.0 million for Navy to conduct an initial suitability assessment that was to be obtained through a Tactical Aircraft Directed Infrared Countermeasure (TADIRCM) Early Operational Assessment (EOA), the results of which must be reported back to Congress within 60 days of the EOA completion.

Navy's TADIRCM Advanced Technology Demonstration (ATD) successfully demonstrated an effective directed LASER infra-red (IR) countermeasure technology for tactical jet aircraft. This ATD successfully demonstrated the effectiveness of this technology and demonstrated the technology's potential to develop its manufacturability, suitability and reliability.

Fiscal Year 2005 Congressional Language added $7.2 million to the TADIRCM EOA effort. $2.3 million was provided for additional assets and spares to accomplish testing in a flight scenario. $4.9 million was provided for the EOA flight tests.

Department of the Navy (DON) has a TADIRCM Program Element (PE) and related PE's that fund multiple DIRCM related efforts in two main categories. Strike DIRCM for strike fighter aircraft, and Assault DIRCM for Assault Support Aircraft (ASA) such as DON's cargo, patrol, rotary wing and tilt rotor aircraft. Due to the loss of ASA aircraft in the past few years DON has made the development and fielding of viable Assault DIRCM solutions a higher priority than Strike DIRCM. These acquisition efforts are discussed below.

PROGRAM STATUS

The TADIRCM ATD was completed in 2002. The attached TADIRCM EOA is a pre Milestone "A" DON effort that was completed on July 17, 2007 when the TADIRCM Program EOA OT-A1 Final Report was approved.

The 2006/2007 DoN Strike DIRCM Analysis of Alternatives (AoA) is evaluating the feasibility of establishing a program of record (POR) that would put TADIRCM technology onto strike fighter aircraft such as the F/A-18 Type Model Series (TMS). This AoA is still in progress.

IMPLICATIONS FOR OTHER ACQUISITION PROGRAMS

ASSAULT DIRCM

The 2006/2007 DON Assault DIRCM AoA, which is a companion to the Strike DIRCM AoA, evaluated the feasibility of putting TADIRCM like capabilities on Department of Defense (DoD) cargo, rotary wing and tilt rotor ASA (final report is expected in late FY 2007).

Four acquisition paths are based on this AoA: (1) Rapidly put available DIRCM systems on aircraft that can accept them in response to urgent need; (2) Improve existing AAR-47 threat warning capabilities that cue aircrew and flare countermeasures; (3) Develop Joint and Allied Threat Awareness System (JATAS) as a direct replacement to the AAR-47 capable of cuing the aircrew, flares and DIRCM (Increment 1 of Assault DIRCM); (4) Develop DIRCM technology that fits into assault aircraft that cannot accept current DoD DIRCM systems (due to size & weight constraints)(Increment 2 of Assault DIRCM).

- **DON LAIRCM**: A DON rapid response to an urgent fleet need to put existing DIRCM capabilities on DON medium and large rotary wing and tilt rotor aircraft that have the available space and weight allotment to accept these systems.

- **AAR-47 Upgrades**: Approximately 2,500 DoD and Allied aircraft use the DON AAR-47 missile and laser warning system that can cue the aircrew and flare countermeasures. DON is developing AAR-47B(V)2 upgrades that are expected to start fielding in 3rd Qtr FY 2008 to address deficiencies of the current sensor in some operational environments. These upgrades are urgently needed by the approximately 1,200 DON AAR-47 equipped aircraft.

- **JATAS**: DON created a JATAS Capabilities Development Document (CDD) that is based on the Assault DIRCM AOA and constitutes Increment 1 of Assault DIRCM. This CDD is in the Joint Capabilities Integration and Development System (JCIDS) review/approval process. JATAS will be a direct replacement to the AAR-47 with greatly expanded capabilities including the ability to cue a DIRCM and detect a much wider range of threats as well as cuing the aircrew and flare countermeasures. JATAS is expected to be fielded starting in 2013 on ASA.

- **DIRCM Technology Development**. In coordination with United States Air Force (USAF) and United States Army (USA), DON is funding multiple technology development efforts that are expected to lead to development of light, small DIRCM systems. The resultant DIRCM system will constitute Increment 2 of Assault DIRCM and will be fielded on ASA that remain unprotected by larger, existing DIRCM systems due to weight and size limitations.

REQUIREMENTS

STRIKE DIRCM. The requirement for Strike DIRCM (the direct extension of the TADRICM ATD and EOA) will be developed after the Strike DIRCM AoA is complete.

DON LAIRCM. Requirements are contained in the draft DON Annex to the USAF Large Aircraft Directed Infrared Countermeasures (LAIRCM) requirements. The rapid reaction effort is expected to lead to a POR that will put about 150 DIRCM systems on the MV-22, CH-53E, CH-46E and CH-53D.

AAR-47B(V)2. This system upgrade will improve probability of detection of missile threats expeditiously, with minimal cost and impact to operational units. DON expects to

upgrade all of its approximately 1,200 AAR-47 capable ASA to the AAR-47B(V)2 as soon as this upgrade kit is available (starting in FY 2008).

JATAS. The JATAS CDD is expected to lead (Increment 1) to a POR that will develop an AAR-47 form factor threat warning system that is capable of cuing the aircrew, flare countermeasures and a DIRCM. The system will increase the missile warning performance in all operational environments as well as adding additional threat warning capabilities. Starting in about 2013, JATAS will replace AAR-47 on DON Aircraft.

LIGHT WEIGHT ASSUALT DIRCM. The combination of JATAS and a light weight DIRCM (when it is developed) will form the DIRCM capability (Increment 2) for ASA that cannot accept current DIRCM systems. Smaller aircraft such as the AH-1 and MH-60 do not have the weight nor space capacity to carry existing DIRCM systems. Assault DIRCM must be capable of protecting these small ASA.

ACQUISTION AND SUSTAINMENT STRATEGIES

The acquisition and sustainment strategies for these efforts are being developed.

CONCLUSION

The results of the EOA, to include the congressionally directed flight tests, are outlined in the attached OT-A1 Final Report that was approved on July 17, 2007. These results are inline with Navy's expectations. While the EOA went a lot further than the ATD in developing and demonstrating technology that is directly applicable to Strike DIRCM and indirectly applicable to Assault DIRCM, there is still more that could be done.

- The TADIRCM Pod should be tested for carrier suitability (i.e. cats and traps). This could be used as pre Milestone B work for a Strike DIRCM or Strike Threat Awareness capability.

- The TADIRCM Pod flight clearance should be expanded to match the intended combat aircraft profiles.

- The TADIRCM Pod could be used to evaluate the combined effectiveness of DIRCM and flare countermeasures against advanced IR threats.

Any decision to create a Strike DIRCM POR with the TADIRCM technologies will be a direct result of the ongoing Strike DIRCM AoA. The information contained in this report will be used as input to that study.

TACTICAL AIRCRAFT DIRECTED INFRARED COUNTERMEASURES (TADIRCM) PROGRAM

EARLY OPERATIONAL ASSESSMENT (EOA)

OT-A1 FINAL REPORT
to the Chief of Naval Operations

COMOPTEVFOR 3980 (3000-249-OT-A1)
Ser 542/437

17 July 2007



Distribution limited to U.S. Government agencies only; test and evaluation document. Other requests for this document must be referred to CNO (N091) or COMOPTEVFOR via DTIC using DTIC form 55.

Commander, Operational Test and Evaluation Force
Norfolk, Virginia

BLANK PAGE

THE COMMANDER'S REPORT

This is the Early Operational Assessment (EOA) report (OT-A1) of the Tactical Aircraft Directed Infrared Countermeasures (TADIRCM) Program, COMOPTEVFOR Project No. 3000-249. The purpose of this test was to assess the TADIRCM by identifying system enhancements and significant areas of risk associated with Directed Infrared Countermeasure (DIRCM) technology and its potential for continued development. The TADIRCM is not currently a CNO program of record; however, results of this EOA and related Developmental Testing (DT) may be used to support future Navy DIRCM programs of record. The conduct of this EOA was a result of Congressional direction to perform an "initial suitability assessment obtained through the Early Operational Assessment (EOA)." Furthermore, Congressional direction provided additional funding to "accomplish testing in a flight scenario." This assessment was accomplished by the Operational Test Director, Lieutenant Sarah Higgins, in conjunction with the Operational Test Coordinator, Commander David Chang.

The TADIRCM accumulated 9.6 operating hours over a 4-month period (30 November 2006 to 23 March 2007) in a podded configuration installed on FA-18E/F aircraft at the Atlantic Test Range (ATR), Naval Air Station (NAS) Patuxent River, MD, and at Armitage Field and North Test Range, Naval Air Weapons Station (NAVAIRWPNSTA) China Lake, CA.

OVERALL TEST RESULTS

The system met the objectives (refer to enclosure (1)) for OT-A1. See Critical Operational Issue (COI) assessments below, and enclosure (1), table (4), for quantitative test results.

The level of risk associated with the successful resolution of COIs and future development of DIRCM technology is addressed in the following table. This risk is based upon program documentation, program plans, and subject matter expert analysis.

COI Assessments	
COI	**OT-A1 (EOA)**
Strike Warfare (STW) Performance	Yellow
Air Warfare (AW) Performance	Yellow
Reliability	Green
Maintainability	Yellow

COI Assessments	
Availability	Yellow
Compatibility	Yellow
Safety	Green
Documentation	White

Color codes for EOAs are:

Red - High level of risk identified.
Yellow - Moderate level of risk identified.
Green - Little or no risk identified.
White - Not evaluated or assessed as a result of system immaturity or lack of information.

The DIRCM technology and its system immaturity prevented a thorough assessment of many mission areas, such as night, shipboard, joint, or live fire operations.

In the FA-18E/F aircraft used during test, system installation was seamless with no effect on the current aircraft systems. However, cockpit situational awareness displays were minimal, providing aircrew with no visual or audible cueing that the system was responding to a target.

MAJOR LIMITATIONS TO THE SCOPE OF TESTING

The limitations, listed below, although expected due to system level of maturity, affected the test team's ability to assess the STW and AW COIs:

- Range testing at the maximum threat density specified for the TADIRCM was not achieved due to range limitations. Only a limited number of threats were available at any one facility. Therefore, the maximum threat density handling capability of the TADRICM was not fully tested.
- Nonavailability of some threat systems or simulators precluded testing against all relevant threat systems.
- The limited flight clearance issued prevented a full assessment of the TADIRCM system in a tactical environment.
- The immature level of the TADIRCM pod and associated aircraft software prevented COMOPTEVFOR's ability to assess the future capabilities of many COIs. Given the immature state of the TADIRCM System, suitability COIs were not fully investigated.
- No open-air capability currently exists to assess DIRCM spatial algorithms.

EFFECTIVENESS AND SUITABILITY FINDINGS

There is moderate risk in proceeding with future development, as the scope of the test did not facilitate evaluating all risk areas normally assessed in a full Operational Test and Evaluation (OT&E). That lack of data, combined with the current test results, identified the following significant risk areas for the TADIRCM:

For operational effectiveness:

- The effect of an active laser system on other host platform IR weapon systems.
- The effect of host platform defensive IR countermeasures on the TADIRCM missile warning system.
- Lack of visual and audible cuing for aircrew situational awareness that the system is operating and effective.

For operational suitability:

- Operation of the system capabilities in its intended tactical environment, to include carrier flight deck operations.

RECOMMENDATIONS

I recommend continuing development of TADIRCM as a tactical aircraft IR countermeasure system. The moderate risk level assessed with development of the DIRCM technology may be lowered as those areas that were not evaluated are observed during future test periods. Specific risk areas that, at a minimum, should be resolved prior to the next phase of test and evaluation are identified below:

- Limited available TADIRCM or DIRCM type system quantities for use on a tactical aircraft.
- Nonintegration of TADIRCM or follow-on DIRCM System with onboard expendables.
- Lack of pod operation and maintenance documentation.

Additional recommendations requiring correction are found in enclosure (1), section 4.

Overall, the TADIRCM System clearly demonstrated the potential to significantly upgrade the FA-18E/F's capability to protect itself against IR threats and warrants further development.

S. S. VOETSCH
Rear Admiral, U.S. Navy

TACTICAL AIRCRAFT DIRECTED INFRARED COUNTERMEASURES (TADIRCM) PROGRAM

EARLY OPERATIONAL ASSESSMENT (EOA)

OT-A1 FINAL REPORT

Distribution limited to U.S. Government agencies only; test and evaluation document dated **17 July 2007**. Other requests for this document must be referred to CNO (N091) or COMOPTEVFOR via DTIC using DTIC form 55.

Encl (1)

BLANK PAGE

CONTENTS

SECTION 1 - - TEST OPERATIONS *1*

1. CHRONOLOGY 1
2. SYSTEM DESCRIPTION 1
3. SYSTEM OPERATION 2
4. METHODOLOGY 2
5. LIMITATIONS 7

SECTION 2 - - PROJECT BACKGROUND *11*

1. HISTORY 11
2. PREVIOUS OT&E 11

SECTION 3 - - TESTS AND RESULTS *13*

1. TEST RESULTS 13
2. TEST E-1 - STRIKE WARFARE 13
3. TEST E-2 - AIR WARFARE 14
4. TEST S-1 - RELIABILITY 14
5. TEST S-2 - MAINTAINABILITY 15
6. TEST S-3 - AVAILABILITY 15
7. TEST S-4 - COMPATIBILITY 15
8. TEST S-9 - SAFETY 16
9. TEST S-10 - DOCUMENTATION 17

SECTION 4 - - RECOMMENDATIONS *19*

APPENDIX A - - DISTRIBUTION OF REPORT *21*

APPENDIX B - - ACRONYMS AND ABBREVIATIONS *23*

APPENDIX C - - REFERENCES *25*

FIGURES

Figure 1. TADIRCM Pod 1
Figure 2. Two-Color IR Sensor 2
Figure 3. OBE/WAAN 4
Figure 4. ISTARS 5
Figure 5. Flight Profile at Armitage Field 6
Figure 6. Clutter Measurement Flight Profile at Los Angles 7

TABLES

Table 1. COI Risk Assessment Classification..... 3
Table 2. OT-A1 Missions Summary..... 6
Table 3. OT-A1 MOA Exit Objectives..... 13

SECTION 1 - - TEST OPERATIONS

1. CHRONOLOGY

Project operations were conducted per references (a) and (b) from 16 to 20 March 2007 at Armitage Field and North Test Range, China Lake, CA.

2. SYSTEM DESCRIPTION

The TADIRCM is a stand-alone, podded system that includes a two-color Missile Warning System (MWS) and a DIRCM System. The MWS detects the threat and cues the DIRCM to the threat location. The DIRCM slews to the threat, establishes a track, and creates an optical break-lock (jam) using modulated IR radiation generated from a laser. The TADIRCM System was integrated into a lightweight pod to assess a stand-alone IR self-protection capability and was tested on fighter/attack aircraft (FA-18E/F). Figure 1 provides a visual depiction of the TADIRCM System in a podded configuration.



Figure 1. TADIRCM Pod

- The MWS is comprised of an electronic control unit and six IR sensors (see figure 2). The sensors detect IR radiation from a missile's motor plume. The control unit provides central processing for the MWS and control of the TADIRCM System.
- The DIRCM component counters IR-guided weapon systems, using information from the MWS via the control unit to locate the threat and direct output power with an appropriate jamming waveform. The DIRCM consists of a jam head control unit and an IR laser.

For the test, the TADIRCM System was installed into a lightweight pod with a single, aft-mounted jam head and fore and aft MWS sensors on FA-18E/F aircraft on stations 2 or 10. The TADIRCM pod operated autonomously with only aircraft power required.

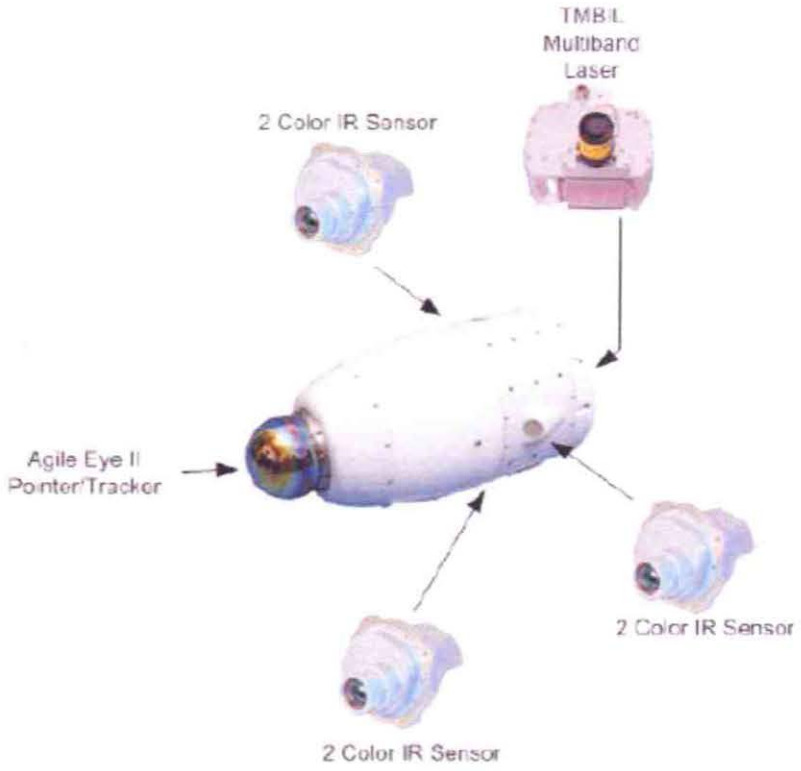


Figure 2. Two-Color IR Sensor

3. SYSTEM OPERATION

The system was operated by Naval Research Laboratory (NRL) personnel with minor Fleet personnel assistance in the intended operating environment. Personnel in assigned aircraft squadrons operated and tested the TADIRCM System as COMOPTEVFOR trusted agents.

4. METHODOLOGY

4.1 Risk Assessments

Table 1 describes the methodology used in analyzing mission impact and likelihood of occurrence.

4.1.1 Mission Impact

As issues that impacted mission accomplishment were identified, they were first classified based on the definitions in table 1.

Table 1. COI Risk Assessment Classification

Risk Assessment Level	Issue Definition
Minimal	Annoying system characteristic or nuisance which does not degrade operational/mission performance or suitability
Minor	Issue that degrades (but does not prevent) operational/mission performance or suitability but can be overcome with operator compensation/workaround
Moderate	Issue that degrades (but does not prevent) operational/mission performance or suitability, no acceptable operator compensation/workarounds exists
Significant	Issue that prevents operational/mission performance or suitability, but can be overcome with operator compensation/workaround
Severe	Issue that prevents operational/mission performance, cannot meet mission objectives or suitability threshold, no workarounds available

4.2 System Test

4.2.1

The purpose of this test was to assess the TADIRCM EOA pod for operational effectiveness and operational suitability while flown in a captive carriage environment, on FA-18 E/F aircraft stations 2 or 10. The system and its IR sensors were also evaluated to determine the effects of urban clutter, afterburner, and wingman and flare countermeasures. The test shall offer Congress and the DIRCM team more information and data as to the requirements associated with a DIRCM system onboard a strike aircraft. This data and lessons learned shall be incorporated into any follow-on systems.

4.2.2

Two FA-18E/F aircraft; three ground-mounted actual surface-to-air missile seekers; one ground-mounted actual air-to-air missile seeker; and two IR plume simulators were dedicated to conducting DT. During OT-A1, eight Fleet pilots flew the aircraft. Available actual IR seekers were used for this test. Live missile shots were not conducted.

4.2.3

The IR plume simulators (used to stimulate TADIRCM responses), surface-to-air, and air-to-air missile systems are described below.

4.2.3.1

The Optical Beam Evaluator and Wander Analyzer (OBE/WAAN) is an NRL-developed system that simulates a missile motor plume and measures jam-laser energy and pointing accuracy., The five photo detectors in the OBE/WAAN system shown in figure 3 were used to determine Agile-Eye pointing accuracy during both the ground and the airborne system checkouts. The IR source was activated via command from the NRL trailer. The photo detectors measured the laser energy received at the source from the TADIRCM pod.



Figure 3. OBE/WAAN

4.2.3.2

The Center for Countermeasures (CCM) IR Seeker Test Van (IRSTV) is a mobile system consisting of a 53-foot trailer and a Contraves Kineto Tracking Mount (KTM). The system is capable of testing up to eight actual IR seekers at one time, depending on the seeker configurations. The seekers can be configured in either a preemptive (with launch tubes and grip stocks) or a reactive mode. In the reactive mode, seekers are mounted to look down into a mirror. The mirror mount is used to simulate an endgame situation. The mirror is aligned with the tracking mount in such a way as to allow the seekers to track aircraft that are being tracked by the seeker mount. Because the seekers are mounted parallel to the mount spin axis, only a slight roll is induced on the missile seeker body, and, therefore, the

seekers only experience minimal tracking rates. Spin control and seeker interface boxes are mounted on the rack above the mirror or on the KTM arms, depending on seeker configuration. The control cable for each seeker is connected to the seeker interface box, which can accept 8 control signals from the seeker control panel in the IRSTV and can buffer and drive up to 16 differential analog signals to a patch panel in the seeker van.

4.2.3.3

The Infrared Target Array and Radiometer System (ISTARS) (figure 4) has similar functions as the OBE/WAAN. However, it has the capability to more accurately simulate an incoming missile and its hot exhaust trajectory. This is accomplished by a series of flame modules that ignite in various speeds, temperatures, and sequences, to give the appearance of a moving missile.

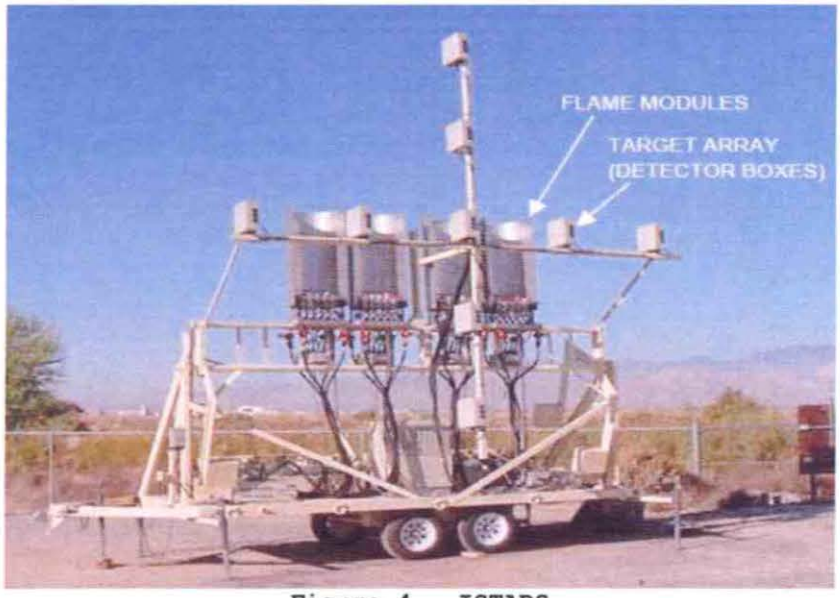


Figure 4. ISTARS

4.2.4

The aircraft was modified with cabling from the Ordnance and Electric Laboratory per drawings TADIRCMUMB, 61P-F001B1, 61P-F001B2, 61P-F001F, TADIRCM1, dated 24 October 2005 reference 5, 6, 7, 8, and 9, respectively. This kit contains cables allowing the pilot to enable the laser through cockpit selection of the air-to-ground master mode and allows for AC and DC current to flow to the pod by activating the IR Cool switch

located in the cockpit. The primary test aircraft was FA-18E 204, bureau number 165660. For the purposes of the test, this aircraft was Fleet representative.

4.3

Eight missions in 9.6 operating hours, using the flight profiles shown in figure 5, were accumulated for dedicated effectiveness flight test. The TADIRCM System underwent flight evaluations using pilot profiles outlined in reference (b). The majority of the aircraft missions were flown from NAVAIRWPNSTA China Lake, CA. Table 2 provides a summary of the number of flight profiles per day flown during the eight missions.

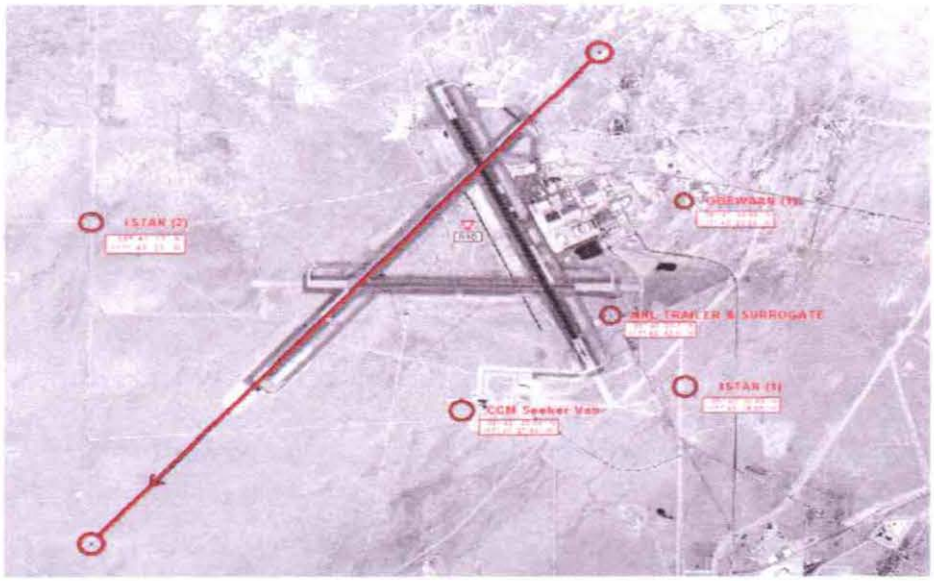


Figure 5. Flight Profile at Armitage Field

Table 2. OT-A1 Missions Summary				
	16 Mar 07	**19 Mar 07**	**20 Mar 07**	**Totals**
No. of Profiles Flown	17	15	17	49
Simulated Threat Engagements	77	82	103	262

4.4

Carrying the TADIRCM pod, FA-18E/F aircraft over flew Armitage Field, conducting multiple passes over a 3-day period. The CCM IRSTV with four actual ground-mounted seekers and both the OBE/WAAN and ISTARS were stationed southeast of the runway and

stimulated the pod at various, preplanned and coordinated times at each overflight. The aircraft varied in altitude and airspeed.

4.5

Los Angeles clutter flight profile is shown, below, in figure 6. False targets were initially generated, but system software refinement significantly reduced the false target rate.



Figure 6. Clutter Measurement Flight Profile at Los Angles

4.6 Wingman Flight

Two FA-18E/F aircraft flew a 1.5-hour mission in various operational, two-ship formations. Each aircraft dispensed flares to determine the effect on the TADIRCM pod. Data were gathered from the TADIRCM pod located on the lead jet.

4.7 Post-Test Data

Pilots provided thorough debriefs after each test flight. Maintenance personnel provided input and observations after test completion. No questionnaires or evaluations were used.

5. LIMITATIONS

5.1 Major

The following major limitations, although expected due to system level of maturity, affected the test team's ability to assess the COIs, but did not affect the ability to provide a

recommendation regarding TADIRCM System continued program development:

5.1.1

Range testing at the maximum threat density specified for the TADIRCM was not achieved due to range limitations. Only a limited number of threats were available at any one facility. Therefore, the TADRICM maximum threat density handling capability was not fully tested. (STW, AW)

5.1.2

Nonavailability of some threat systems or simulators precluded testing against all relevant threat systems. Whenever practical, real threat IR systems were used. (STW, AW)

5.1.3

The immature level of the TADIRCM pod and associated aircraft software prevented COMOPTEVFOR's ability to assess the future capabilities of many COIs. Given the immature state of the TADIRCM System, suitability COIs were not fully investigated. (Reliability, Maintainability, Availability, Compatibility, Safety, Documentation)

5.1.4

No open-air range capability currently exists to assess DIRCM spatial algorithms. (STW, AW)

5.1.5

The issued flight clearance limited TADIRCM pod captive carry on the FA-18E/F to pylons 2 and 10, 400 knots calibrated air speed and negative 1.0 to plus 3.0 g. (STW, AW, Compatibility)

5.1.6

Pod configuration, interim air worthiness certification, and Naval Air Training and Operating Procedures Standardization restrictions limited test aircraft flight scenarios and regimes. (STW, AW, Availability)

5.2 Minor

The following minor limitations did not affect the assessment of COIs or the ability to provide a recommendation regarding the continued program development of the TADIRCM System:

5.2.1

Laser jamming restrictions prevented operating the TADIRCM System throughout its entire operating range. This limitation was mitigated by extrapolating TADIRCM's jamming performance in allowable ranges.

5.2.2

The number of FA-18E/F aircraft available during OT-A1 precluded collection of adequate reliability and maintainability data.

5.2.3

TADIRCM testing was not conducted under all possible environmental conditions. The system was tested in environmental conditions occurring at the actual time of testing at previously listed ranges and air fields.

BLANK PAGE

SECTION 2 - - PROJECT BACKGROUND

1. HISTORY

1.1 Requirement

The TADIRCM EOA Pod is a Congressionally mandated flight demonstration program designed to assess technology suitability in a tactical airborne environment. The TADIRCM capitalizes on lessons learned from the highly successful TADIRCM Advanced Technology Demonstration (ATD). The ATD prototype hardware that was demonstrated on a QF-4 drone resulted in 40 successful test events, but was limited in airspeed, vertical acceleration, and roll rates. In addition, the ATD equipment was designed for an internal airframe installation and was not suitable for a weapons station pod environment. Additionally, CNO (N88) desired the FA-18 be used as the flight test vehicle. The pod's effectiveness is to be assessed against state-of-the-art IR threat seekers that tactical aircraft are likely to encounter in today's modern battlefield.

2. PREVIOUS OT&E

2.1

No prior OT&E has been conducted on the TADIRCM. The TADIRCM EOA pod has been through vibration, thermal, and electromagnetic interference testing at Raytheon Indianapolis, ID. All testing was considered successful for the planned test environment and flight envelope for this test. The TADIRCM EOA pod also successfully completed ground testing that included a standard MIL-HDBK-1763 fit test and a laser alignment and functional checkout. A total of four flights were also conducted at Patuxent River, MD, under NAVAIR Test Plan SA06-11-099A; one qualitative captive carriage and three functional flights. The qualitative captive carriage determined the TADIRCM's capability to survive in a limited FA-18 flight environment. The combined DT/OT at Armitage Field and North Test Range at NAVAIRWPNSTA China Lake were conducted per references (a) and (c).

BLANK PAGE

SECTION 3 - - TESTS AND RESULTS

1. TEST RESULTS

1.1 OT-A1 Exit Objectives

Table 3 depicts specific Memorandum of Agreement (MOA) exit objectives for OT-A1 from reference (a). Although these do not directly correlate to the COIs, these were assessed in the course of OT-A1 execution. At the end of OT-A1, all MOA exit objectives were fulfilled. See reference (c) for classified results.

Table 3. OT-A1 MOA Exit Objectives

Ground Tests	Demonstrated or Observed
a. Assess installed threat detection and declaration capability.	X
b. Assess handoff of the missile threat to the laser turret assembly.	X
c. Assess installed jammer performance, as designed, and effectiveness against selected threat missile seekers.	X
d. Characterize TADIRCM operation against single and multiple missile threats.	X
e. Verify that the TADIRCM test pod does not degrade other aircraft and weapon avionics while operating autonomously.	X
f. Characterize aircraft wing station environment and its effects on TADIRCM pod operation.	X
g. Acquire background measurements for threat detection probability and false alarm vulnerability.	X

Specific risk areas addressed in this report are referenced to the COIs to better represent current performance and allow the assessment of future risk.

2. TEST E-1 - STRIKE WARFARE

Will the TADIRCM demonstrate the operational performance necessary to effectively support the tactical aircraft in operationally representative STW missions?

2.1 Results (Yellow)

The TADIRCM system was tested against three IR ground-mounted actual surface-to-air threat missile seekers. It proved highly efficient in initiating a track and slewing the laser jammer to illuminate the target against both single and multiple targets. Additionally, the TADIRCM is hands free within the cockpit, allowing the pilot to prioritize his STW mission. However, an added cockpit display indicating system response/activity would add to the pilot's situational awareness in a combat environment. Due to its pod design, TADIRCM will occupy a wing station, decreasing the available weapon load to support the aircraft during STW missions. Overall, a moderate level of risk was assessed.

3. TEST E-2 - AIR WARFARE

Will the TADIRCM demonstrate the operational performance necessary to effectively support the tactical aircraft in operationally representative AW missions?

3.1 Results (Yellow)

The TADIRCM system was tested against one IR ground-mounted actual air-to-air threat missile seeker. It proved highly efficient in initiating a track and slewing the laser jammer to illuminate the target. Additionally, the TADIRCM is hands free within the cockpit, allowing the pilot to prioritize his AW mission. An added cockpit display would add to the pilot's situational awareness in a combat environment. Due to its pod design, TADIRCM will occupy a wing station, decreasing the available weapon to support the aircraft during the AW missions. Overall, a moderate level of risk was assessed.

4. TEST S-1 - RELIABILITY

Will the reliability of the TADIRCM support completion of its mission?

4.1 Results (Green)

4.1.1

There were no hardware failures in 9.6 flight hours (no criterion).

4.1.2

The demonstrated mean time between operational mission faults, software was 4.8 hours (no criterion), based on two software

faults in 9.6 flight hours. However, note that the system showed excellent potential and that the number is low based upon the limited hours flown during test.

4.2 Deficiencies

During flight number five, the TADIRCM system went off line. After several attempts, NRL personnel brought the system back on line, only to go off again. NRL personnel recycled power and turned off part of the track filtering system, which eventually brought the system back on line. The TADIRCM worked correctly for the remainder of the 1.5-hour flight. Various aircraft in the area reported Global Positioning System (GPS) failures at the time of tracker malfunctions. However, NRL personnel determined a GPS failure did not cause the tracker to malfunction.

5. TEST S-2 - MAINTAINABILITY

Will the TADRICM be maintainable by Fleet personnel, as related to uploading and downloading the pod, as well as release and control checks?

5.1 Results (Yellow)

VX-23 ordnance personnel uploaded and downloaded the TADIRCM pod several times. The team leader determined the ordnance team needed no additional maintenance training. Release and control checks were not tested.

6. TEST S-3 - AVAILABILITY

Will the availability of the TADIRCM support completion of its mission?

6.1 Results (Yellow)

The demonstrated Operational Availability (A_O) was .99 (no criterion), based on 119.8 hours uptime and 0.2 hours downtime, due to the two software faults discussed previously. However, the high A_o was tempered by the fact that only one TADIRCM pod was available with only the aft laser jammer operating. A moderate risk level was assessed.

7. TEST S-4 - COMPATIBILITY

Will the TADIRCM be compatible with its operating environment?

7.1 Results (Yellow)

7.1.1
During flights, wingman flares had no effect on the TADIRCM. However, own-ship flares did have some effect on TADIRCM losing track.

7.1.2
Based on the results of electromagnetic interference/ electromagnetic compatibility testing to MIL-STD461, EC102, and RE102 conducted prior to flightworthiness certification, the TADIRCM pod had been determined not to interfere with avionics systems onboard an FA-18 aircraft. Detailed information is available in reference (d), Test Report for the Electromagnetic Environmental Effects (E3) Flight Clearance Test of the Tactical Aircraft Directional Infrared Countermeasures (TADIRCM) Pod.

7.1.3
No degraded performance of host aircraft avionics were observed while the TADIRCM EOA pod was installed and operational on an FA-18E/F.

7.1.4
Overall, a moderate level of risk was assessed due to the limited tests conducted with ordnance carried by the host aircraft and wingman. Additionally, operation at sea was outside the scope of this test and remains to be evaluated as to the effects of flight deck operations and the corrosive salt environment, to which a protective shield might be needed for the IR sensors and laser system.

8. TEST S-9 - SAFETY

Will the TADIRCM be safe to operate and maintain?

8.1 Results (Green)

8.1.1
The TADIRCM System was safe to operate and maintain. Laser safety procedures and checklists developed for the test process were effective in preventing any injuries to personnel.

8.1.2
Data collected during TADIRCM pod vibration and thermal environmental testing prior to flight, at conditions expected to be encountered during flight, indicated that the entire system, including jammer, should operate without component failure. The test vibration level was 4.2 g Root Mean Square (gRMS).

Additional data are available in reference (e), Test Report for the Safety of Flight Test of the Tactical Aircraft Directional Infrared Countermeasure (TADIRCM) Pod.

8.1.3

Data collected in flight over a limited flight envelope corroborated the environmental test data, indicating no failures. The most severe vibration level observed, experienced in the vertical direction at the aft end of the pod, was 1.75 gRMS; the average level at that location was 0.15 gRMS. These levels were substantially lower than the 4.2 gRMS test level.

9. TEST S-10 - DOCUMENTATION

Will the technical documentation support operation and maintenance of the TADIRCM?

9.1 Results (White)

There currently is no formal documentation to support operation or maintenance of the TADRICM due to the early stage of development.

BLANK PAGE

SECTION 4 - - RECOMMENDATIONS

1. RECOMMENDATIONS

The following risk areas are identified for correction prior to the next phase of test and evaluation:

1.1 Expand Flight Clearance

Expanded aircraft and pod configuration flight clearance to allow for more realistic testing in STW and AW environments (see page 8, paragraphs 5.1.5, 5.1.6). (STW, AW)

1.2 Limited Aircrew Displays

Develop better cockpit displays to increase aircrew situational awareness that the system is active (see page 14, paragraphs 2.1, 3.1). (STW, AW)

1.3 Forward Laser

Add the second laser to the pod, making it 100 percent operational to get a more accurate assessment in a multiple threat environment (see page 15, paragraph 6.1 and classified reference (c), paragraph 2.3). (Availability)

1.4 TADIRCM False Targets

Determine TADIRCM response while conducting live fire tests with ordnance from the host aircraft, as well as the wingman (see page 16, paragraph 7.1.1). (Compatibility)

1.5 Laser Hazard

Determine effect of TADIRCM laser on ordnance carried on additional aircraft wing stations (see page 9, paragraphs 5.1.5 and 5.1.6). (Availability, Compatibility, Safety).

1.6. Operating Environment

Determine carrier suitability (see page 16, paragraph 7.1.4). (Compatibility)

1.7 Software Faults

Conduct further investigation to determine cause of the 2 software faults that occurred (see page 15, paragraph 4.2, S-1) (COI(s): S-1 Reliability).

2. SYSTEM ENHANCEMENTS

Implementation of the following will result in enhanced operational effectiveness and suitability:

2.1 Compatibility

Develop a protective shield for the laser system and DIRCM sensors for flight deck use (see page 16, paragraph 7.1.4). (Compatibility)

APPENDIX A - - DISTRIBUTION OF REPORT

Copy to:
CNO (N88, N091)
COMNAVAIRSYSCOM (AIR-5.1E, AIR-5.1.6.5)
COMNAVAIRSYSCOM (AIR-5.0E)
PEOTACAIR (PEO(T), PMA 272)
AIRTEVRON NINE
NRL (Code 5663)

BLANK PAGE

APPENDIX B - - ACRONYMS AND ABBREVIATIONS

A_o	Operational Availability
ATD	Advanced technology demonstration
ATR	Atlantic Test Range
AW	Air Warfare
COI	Critical Operational Issue
CCM	Center for Countermeasures
DIRCM	Directed Infrared Countermeasure
DT	Developmental Test
EOA	Early Operational Assessment
GPS	Global Positioning System
gRMS	g Root Mean Square
IR	Infrared
IRSTV	IR Seeker Test Van
ISTARS	Infrared Target Array and Radiometer System
KTM	Kineto Tracking Mount
MOA	Memorandum of Agreement
MWS	Missile Warning Sensors
NAS	Naval Air Station
NAVAIRWPNSTA	Naval Air Weapons Station
NRL	Naval Research Laboratory
OBE/WAAN	Optical Beam Evaluator Wander Analyzer
OT&E	Operational Test and Evaluation
STW	Strike Warfare
TADIRCM	Tactical Aircraft Directed Infrared Countermeasures

BLANK PAGE

APPENDIX C - - REFERENCES

(a) COMOPTEVFOR ltr 3980 Ser 00/152 of Mar 14 06

(b) NAVAIRSYSCOM Test Plan C-07-03-0662A00 of 14 Mar 07

(c) COMOPTEVFOR ltr 3980 Ser 542/SXXX of 07

(d) Test Report for the Electromagnetic Environmental Effects (E3) Flight Clearance Test of the Tactical Aircraft Directional Infrared Countermeasures (TADIRCM) Pod of 6 Oct 06

(e) Test Report for the Safety of Flight Test of the Tactical Aircraft Directional Infrared CountermeasureS (TADIRCM) Pod of 20 Oct 06

BLANK PAGE

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

MAY 30 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Defense Authorization Conference Report 109-702, the enclosed report provides an assessment of the ship repair industrial base. This report focuses on the health of the ship repair industrial base and not the new construction industrial base. Specifically, the report addresses ship repair requirements to support the National Military Strategy; evaluation of the repair industrial base's critical capabilities, capacity, competitive sourcing, geographical disposition; and other critical factors as measured against the determined requirements.

The post-9/11 environment has seen the Fleet shift from a rotational cycle to the Fleet Response Plan enhanced surge capability. The shift requires the maintenance community infrastructure to be flexible. One Shipyard, Multi-Ship Multi-Option, and the private sector provide the flexibility to provide operational and combat ready ships and weapon systems required by the Fleet. Current capacity and capability of the private sector ship repair industrial base are adequate to satisfy the national security interests of the United States. The Navy's goal is to maintain a viable private sector ship repair industrial base while balancing public shipyard workload to comply with Title 10.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

MAY 30 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Defense Authorization Conference Report 109-702, the enclosed report provides an assessment of the ship repair industrial base. This report focuses on the health of the ship repair industrial base and not the new construction industrial base. Specifically, the report addresses ship repair requirements to support the National Military Strategy; evaluation of the repair industrial base's critical capabilities, capacity, competitive sourcing, geographical disposition; and other critical factors as measured against the determined requirements.

The post-9/11 environment has seen the Fleet shift from a rotational cycle to the Fleet Response Plan enhanced surge capability. The shift requires the maintenance community infrastructure to be flexible. One Shipyard, Multi-Ship Multi-Option, and the private sector provide the flexibility to provide operational and combat ready ships and weapon systems required by the Fleet. Current capacity and capability of the private sector ship repair industrial base are adequate to satisfy the national security interests of the United States. The Navy's goal is to maintain a viable private sector ship repair industrial base while balancing public shipyard workload to comply with Title 10.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

MAY 30 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear. Mr. Chairman:

As directed by the Fiscal Year 2007 Defense Authorization Conference Report 109-702, the enclosed report provides an assessment of the ship repair industrial base. This report focuses on the health of the ship repair industrial base and not the new construction industrial base. Specifically, the report addresses ship repair requirements to support the National Military Strategy; evaluation of the repair industrial base's critical capabilities, capacity, competitive sourcing, geographical disposition; and other critical factors as measured against the determined requirements.

The post-9/11 environment has seen the Fleet shift from a rotational cycle to the Fleet Response Plan enhanced surge capability. The shift requires the maintenance community infrastructure to be flexible. One Shipyard, Multi-Ship Multi-Option, and the private sector provide the flexibility to provide operational and combat ready ships and weapon systems required by the Fleet. Current capacity and capability of the private sector ship repair industrial base are adequate to satisfy the national security interests of the United States. The Navy's goal is to maintain a viable private sector ship repair industrial base while balancing public shipyard workload to comply with Title 10.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON DC 20350-1000

MAY 30 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Defense Authorization Conference Report 109-702, the enclosed report provides an assessment of the ship repair industrial base. This report focuses on the health of the ship repair industrial base and not the new construction industrial base. Specifically, the report addresses ship repair requirements to support the National Military Strategy; evaluation of the repair industrial base's critical capabilities, capacity, competitive sourcing, geographical disposition; and other critical factors as measured against the determined requirements.

The post-9/11 environment has seen the Fleet shift from a rotational cycle to the Fleet Response Plan enhanced surge capability. The shift requires the maintenance community infrastructure to be flexible. One Shipyard, Multi-Ship Multi-Option, and the private sector provide the flexibility to provide operational and combat ready ships and weapon systems required by the Fleet. Current capacity and capability of the private sector ship repair industrial base are adequate to satisfy the national security interests of the United States. The Navy's goal is to maintain a viable private sector ship repair industrial base while balancing public shipyard workload to comply with Title 10.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

on

Assessment of Ship Repair Industrial Base

Prepared by:
Director, Fleet Readiness (OPNAV N43)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

June 2007

BACKGROUND

The FY 2007 Defense Authorization Conference Report 109-702 directs the Secretary of Defense to submit a report to Congressional defense committees on the current assessment of the ship repair industrial base. The conference report refers to Section 1017 of National Defense Authorization Act (NDAA): "The conferees agree that a strong ship repair industrial base is vital to the national security of the United States. Accordingly, it is important that the Secretary maintain a current assessment of the Nation's ship repair capabilities and capacity and, consistent with the Secretary's assessment, that the Department assign value to the accomplishment of overhaul, repair, and maintenance work in the United States for the evaluation of offerors' proposals in the awards of contracts to carry Department cargo. To guide formulation and implementation of the Secretary's acquisition policy, the Secretary shall conduct an assessment of the ship repair industrial base, to include: (1) a determination of ship repair requirements to support the National Military Strategy; (2) an evaluation of the repair industrial base's critical capabilities, capacity, competitive sourcing, geographical disposition; and (3) other critical factors as measured against the determined requirements."

EXECUTIVE SUMMARY

The current capacity and capability of the ship repair industrial base are adequate to satisfy the national security interests of the United States. The public shipyards and private sector shipyards collectively constitute the naval ship repair industrial base. The requisite facilities and manpower exist to meet navy ship depot maintenance requirements. The Multi-Ship Multi-Option (MSMO) contracting strategy provides continuity for planning and maintenance processes for Navy ships and contractors.

As the Navy enters the second half of this decade, having completed a peak period of major submarine maintenance, ship maintenance providers will experience a net reduction in the overall Navy projected ship depot maintenance workload during FY 2007-2010. Exacerbating the reduced workload are major carrier and submarine maintenance periods, which create significant, episodic surges for shipyard manpower and facilities. The future years' challenges are to

- determine the correct workload balance to maintain effective and efficient public and private shipyards,
- ensure compliance with statutory requirements for public shipyard capability and capacity, and
- allow for flexibility within the industrial base to meet Fleet surge demands.

The February 2007 Naval Shipyard Business Plan provides an assessment of the public sector ship repair industrial base and the way ahead in sustaining core skills, process, and infrastructure capability and capacity for the future. Consequently, this report will focus on the private sector ship repair industrial base.

SHIP MAINTENANCE REQUIREMENTS

Statutory Requirements:

U.S. Code Title 10 contains requirements for public depot maintenance capabilities and capacity. These statutes are also the foundation for building a bottom-up "zero-based" definition of Naval Shipyard capacity and baseline workload requirements.

- Title 10 USC 2464 requires a core logistics capability (skill, processes, and infrastructure) that is government-owned and government-operated, to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response for designated weapon systems.
- Title 10 USC 2466 limits to no more than 50 percent the amount of depot maintenance funds made available in a fiscal year that can be contracted out to the private sector.

- Title 10 USC 2472 requires public depot civilian employment to be managed solely on the basis of workload and the funds available for such depot maintenance. It prohibits management by "end strength."

Navy Requirements:
The total Navy ship depot maintenance workload is a function of the following:

- Force structure;
- Maintenance plans for each ship class (including the established intervals, durations, maintenance cycles and repair mandays for depot level maintenance availabilities)
- Fleet Modernization Plan;
- Homeport assignments;
- Fleet operational tempo; and
- Planning, Programming, Budgeting and Execution System, including the Capability Plan, which programs the funding and capacity necessary to execute the above workload with only limited surge capacity.

Workload distribution between the public and private sectors is accomplished using the availability assignment criteria approved by the Secretary of the Navy. The governing principles of these criteria aim to strike a balance between a ship's crew's quality of life, the cost of the work, the ship's operational availability, and the private sector or public sector depot's ability to execute work in accordance with cost and schedule goals. The assessment criteria are as follows:

- Schedule maintenance in ship's homeport when possible;
- Optimize critical skill usage; and
- Load public shipyards first to efficiently use organic capacity.

When there is more than one option for availability assignment, the following factors, as applicable, will be taken into account:

- Crew impact;
- Cost impact;
- Operational impact;
- Shipyard executability;
- Class Maintenance Plan impact;
- Schedule impact; and
- Modernization impact.

As the Naval Shipyard workload is performed primarily on nuclear-powered submarines, nuclear-powered aircraft carriers and large-deck amphibious ships, the depot maintenance work on the Navy's conventionally-powered surface ships and on Military Sealift Command (MSC) ships is primarily private sector workload. Refueling overhauls on nuclear-powered aircraft carriers and all maintenance work for USS ENTERPRISE (CVN 65) are performed in the private sector by Northrop Grumman Newport News (NGNN).

The six Regional Maintenance Centers (RMCs), located in Norfolk, VA, Mayport, FL, Ingleside, TX, San Diego, CA, Bremerton, WA, and Pearl Harbor, HI, are the Navy's contracting agents for private sector ship availabilities, and provide a single point of contact in each fleet concentration area for ship maintenance and modernization issues. In addition to providing contract oversight, the RMCs plan and execute maintenance per Fleet policy and guidance, and assure process compliance.

MSC ships are maintained by private sector shipyards. MSC operates ships under a commercial model using a variety of operating and ownership arrangements that affect how ship repair work is managed.

Government-owned vessels are maintained to commercial standards primarily on the basis of rules of the American Bureau of Shipping (ABS) and the regulations of the United States Coast Guard (USCG), with the exception of ships originally built to Navy standards. Government-owned and government-operated ship maintenance requirements are managed by government employees. Maintenance availabilities are generally competitively bid with some exceptions (e.g., work is sole-sourced at Guam Shipyard as start up work to allow Guam Shipyard to become a viable shipyard). Government-owned and contractor-operated ships are maintained by the commercial operator to commercial standards. Maintenance availabilities are competitively bid. Contractor-owned and contractor-operated ship maintenance is the responsibility of the independent owner.

CAPABILITIES AND CAPACITY

As of January 2007, 119 ship repair firms are certified capable to perform work on U.S. Navy ships. These contractors are geographically located in port areas throughout the Continental United States (CONUS), in Hawaii, and in Guam. Figure 1 provides a graphic illustration of the locations of the large commercial firms and the type of work that they perform.



Figure 1 – Private Ship Repair Contractors by Port Area

The process for certifying ship repair firms is controlled by the Master Ship Repair Agreement/Agreement for Boat Repair (MSRA/ABR) Program. The MSRA/ABR Program is an eligibility determination that evaluates a ship repair firm's capability and capacity to perform maintenance of U.S. Navy ships. The threefold purpose of establishing MSRAs is to:

- Identify and certify a qualified ship repair industrial base in each homeport area;
- Develop a uniform set of standard criteria to evaluate ship repair firms seeking to perform maintenance on Navy ships; and
- Provide consistent nationwide interpretation and application of the MSRA criteria in the certification and recertification process.

Ship repair firms holding an MSRA with the Navy must meet the following certification criteria:

- Capable of accomplishing a Selected Restricted Availability (SRA) on an FFG-7 Class (frigate) ship or larger;
- Perform 55 percent of the SRA using their own facilities and their own workforce; and
- Possess or have access to a pier with the requisite support and technical services available to accommodate an FFG-7 Class ship.

ABR certification criteria are less stringent and allow smaller ship repair firms to perform ship repair work. To qualify for an ABR, a contractor must be primarily engaged in ship and/or boat/craft repair. Contractors must meet the general criteria of the North American Industry Classification System (NAICS) code 335511, Shipbuilding and Repairing, or code 336612, Boatbuilding. Contractors must demonstrate managerial and technical capabilities. ABR contractors are also evaluated on their ability to accomplish a variety of industrial work, including ship fitting, sheet metal, welding, pipefitting, machinist, electrical, electronics, woodworking and rigging.

The intent of the MSRA/ABR Program is to provide a written instrument of understanding for the Navy to solicit and award single ship, firm fixed-price contracts to a universe of capable contractors. MSMO contracts, discussed in the following section, do not require an MSRA/ABR. However, the MSRA criteria are built into the MSMO solicitation. In addition, in accordance with Title 10 USC 7299a, solicitations for short-term repair availabilities (six months or less in duration) are restricted to firms capable of performing work within a ship's homeport, assuming adequate competition. Availabilities longer than six months in duration must be competed coast-wide.

Appendix A lists the MSRA and ABR certificate holders sorted by the port area.

Contracting Strategy:

MSMO contracts are repair and overhaul contracts for a specific number of ships in a ship class in a single homeport that are awarded to a prime contractor for a base plus several option years. The MSMO contract provides continuity for planning and maintenance processes for Navy ships and private sector teams awarded the work.

MSMO contracts awarded after May 2004 must meet the requirements of Title 10, USC 2382 "Consolidation of contract requirements: policy and restrictions," which requires the Department's senior procurement executive to:

- Address small business concerns;
- Conduct market research;
- Identify alternative contracting approaches involving a lesser degree of consolidation; and
- Determine that consolidation is necessary and justified.

MSMO contracts are crucial to meeting the Navy's Fleet maintenance needs, while supporting operational schedules. MSMO contracts provide execution planning, ship repair, modernization, and inter-availability maintenance coverage for a number of years vice issuing a single fixed-price contract for each ship repair action. Benefits of this arrangement include the following:

- Establishes a long term relationship between ship and contractor;
- Reduces cost and rework on repetitive alterations on same ship class/platform;
- Provides for a quick response to emergent work/growth (critical for surge capability concept);
- Provides program stability for the Fleet and contractor, creating added incentives for contractor facility investment;
- Facilitates level loading of work, resulting in improved contractor efficiencies and cost savings;
- Reduces time to the government and contractor resulting from issuing one contract to cover multiple years vice the time associated in the acquisition cycle to issue a single contract for each individual repair availability;
- Accommodates advance planning for repair availabilities throughout contract duration, which improves contractor efficiencies; and
- Establishes workforce familiarity with the specifics of a ship class enabling long-term functional excellence within a particular discipline.

The MSMO contracting strategy is used for surface ships (except carriers in San Diego) where the basic award is competed for a class of ships in a homeport and all subsequent availabilities for that class of ships are separate options that are effectively sole source to the MSMO winner. The MSMO contracting strategy is also used for carriers in San Diego; however, the basic award is not competed (i.e. carrier availabilities are competed in Norfolk and the Pacific Northwest were a Naval Supervising Activity is present to supervise the winning private firm). Although competition is sought for submarine availabilities, these are generally sole-source single availabilities.

Dry Docks:

The Navy manages a safety certification program for dry docking facilities and shipbuilding ways for U.S. Navy ships. The program functions to ensure the safety of U.S. Navy ships during all dry docking evolutions, launchings and lay periods, and to establish certified rated capacity of each facility. Certification is required for all Navy dry docking facilities and private sector dry docking facilities with contracts to build, overhaul or repair Navy ships. Certification is also required for MSC ships repaired in CONUS. The dry dock certification program serves to:

- Assure safe dry docking of U.S. Navy ships;
- Protect human life and property;
- Provide a sufficient number of certified dry docking facilities, geographically located, to meet Fleet requirements;
- Promote and maintain sound dry docking practices; and
- Maintain existing dry dock assets and ensure their adequacy in the future.

Certification is not required to dock small boats and service craft. Currently, 78 public and private facilities are in the dry dock safety certification program. Thirty-two of these facilities are in the private sector. Appendix B displays a matrix of ship classes and the certified private sector dry docks that can accommodate them.

Employment:
The private sector ship repair industrial base is comprised of the 36 MSRA holders and 83 ABR contractors. Employment of private sector workers occupied on Navy ship repair work has fluctuated over the years consistent with contracted workload and as a function of the cyclic nature of ship maintenance requirements. Figure 2 below shows both public sector and private sector shipyard employment engaged on ship repair work on all classes and types of U.S. Navy ships from 1990 to 2006. The private sector repair workforce has remained relatively stable at somewhat less than 20,000. Conversely, public sector shipyard employment has declined nearly 60 percent during that timeframe.

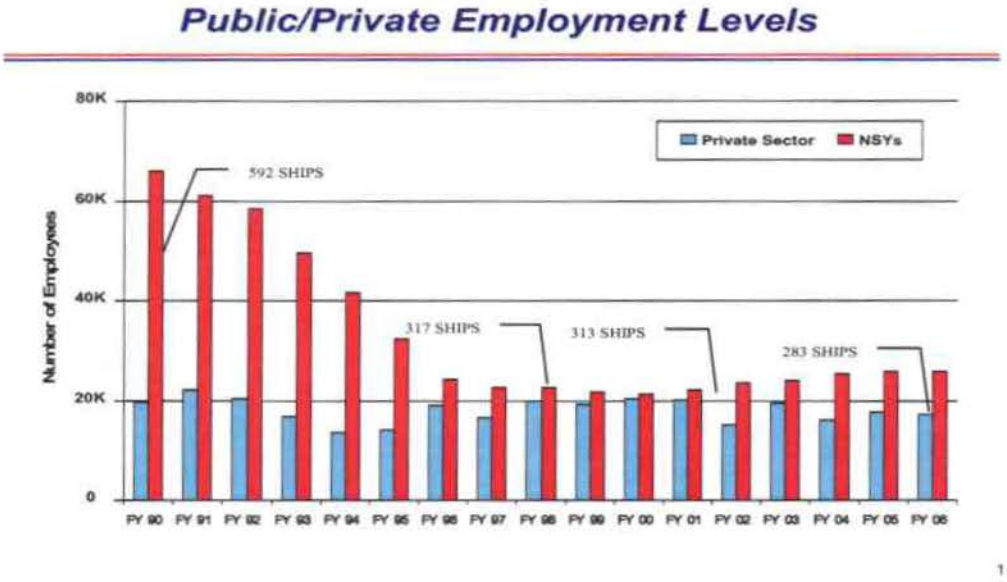


Figure 2 – Public & Private Ship Repair Employment FY 1990-2006

Capacity and Workload:
Capacity of the private sector ship repair industrial base is adequate to satisfy national security interests and fulfill current Navy ship maintenance requirements. Long-term maintenance trends fluctuate by region and will impact workload. In the Northeast and Mid-Atlantic regions, planned submarine depot maintenance work contracted to General Dynamics Electric Boat (GDEB) and NGNN, respectively, will phase out in FY 2007. Future submarine work for the private sector will be limited to an "on-exception" basis. Future homeporting plans and ship decommissionings will also have an impact. Navy repair work in the Ingleside, TX area will cease after FY 2009 as mine warfare ships relocate to San Diego, CA. Decommissioning of USS JOHN F. KENNEDY and FFGs will reduce workload in the Southeast. Due to cyclic nature of carrier maintenance, workload in the Pacific Northwest will decrease in FY 2008, but will rebound in FY 2009. Aggregate private sector surface ship loading will remain relatively constant in the Mid-Atlantic area. In San Diego, private sector workload will increase slightly from FY 2007 as the mine warfare forces and Littoral Combat Ship homeporting occurs. Hawaii private sector workload will remain constant.

The private sector capacity to perform ship repair work is displayed below by region in table 1. The capacities are estimates of the number of production workers available per day within the port area for FY 2006. The production workforce is composed of trade skill workers, and does not include engineers and support personnel.

Region/Port	Capacity
Northeast/Groton, CT	1,800
Newport News, VA	5,200
Mid-Atlantic/Norfolk, VA	3,600
Southeast/Mayport, FL	750
South Central/Ingleside, TX	250
Southwest/San Diego, CA	4,300
Northwest/Puget Sound, WA	1,500
Hawaii/Pearl Harbor, HI	450
	17,850

Table 1 – Private Sector Capacity, by Region

OTHER CRITICAL FACTORS

One Shipyard

In 2001, the Naval Sea Systems Command (NAVSEA) introduced the One Shipyard concept of the Industrial Base Workload and Resource Enterprise to provide the most efficient ship maintenance for the Fleet operating via a Surge, Sustain and Reconstitute construct. One Shipyard focuses on cost, schedule, and quality through standardizing processes, sharing resources among public yards, and partnering with private yards. Other vital elements of the One Shipyard concept are a corporate approach to material support and the resolution of critical skill shortages. One Shipyard is a descriptor for this distributed complex of facilities, people and processes. The size and location of the public sector and private sector industrial base workforce can create geographic critical skill shortfalls, particularly when the actual workload varies from programmed workload in a surge scenario. To mitigate skill imbalances, workers are loaned and borrowed across shipyards rather than having each shipyard hire, train and employ capacity to execute peak workload that would be underutilized and costly to maintain during off-peak times. Although the industrial base today has adequate worker capacity, the workers must be carefully managed and moved to where the work is geographically located. This facet of ship repair is unique in the depot industry – all other depot repairs are conducted by moving the units to be repaired to where the workers are employed.

Partnerships

In accordance with Title 10 USC 2474, the public shipyards are designated Centers of Industrial and Technical Excellence (CITE) for maintenance and repair, modernization, inactivation, disposal, and emergency repair of Navy ships, systems, and components. Title 10 USC 2474 authorizes and encourages public private partnerships, permits performance of work related to core competencies, and permits use of facilities and equipment. The conversion of four USS OHIO Class Ballistic Missile submarines (SSBN) to Guided Missile submarines (SSGN) are prime examples of CITE partnering between the Naval Shipyards and private industry. In partnership with GDEB, both Norfolk Naval Shipyard (NNSY) and Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS&IMF) provided facilities, equipment, and augmented production resources to execute the conversion work.

The One Shipyard concept has been instrumental in fostering partnerships between the public and private sectors. Private sector partnering with the Naval Shipyards has resulted in GDEB support on submarine availabilities at Groton, CT and at Portsmouth Naval Shipyard (PNSY). Likewise, the Naval Shipyards

have provided support at both GDEB and NGNN. Partnering is not limited to submarine work. In the Norfolk area, the public sector shares carrier work with Earl Industries and large-deck amphibious ship work with BAE Systems Norfolk Shipbuilding. PSNS&IMF shares carrier work with Todd Shipyard in the Northwest. In San Diego, PSNS&IMF also shares carrier work with the private sector in that NGNN serves as an integrator, subcontracting to local private firms. In Hawaii, Pearl Harbor Naval Shipyard (PHNSY)&IMF partners with BAE Systems Hawaii Shipyards in providing the facility and support for docking surface ships.

Many more partnerships and teaming arrangements exist among private contractors. In the past, MSMO contracting has strongly encouraged the prime contractor to subcontract work to small businesses through incentives. A new policy requires that MSMO contracts awarded after May 2004 include a requirement to subcontract 40 percent of the work to small businesses. Teaming arrangements by joint ventures and partnerships have been a result of MSMO contracting. When the Navy awards a MSMO contract to a prime contractor involved in a contractor team arrangement, the Navy, acting under the Federal Acquisition Regulation, recognizes the integrity and validity of that arrangement while retaining its right to require consent to subcontracts, to pursue its policies on competitive subcontracting, and to hold the prime contractor fully responsible for contract performance.

CONCLUSION

The post-9/11 environment has seen the Fleet shift from a rotational cycle to the Fleet Response Plan enhanced surge capability. The shift requires the maintenance community infrastructure to be flexible in response to an evolving demand signal from Combatant Commanders. One Shipyard and MSMO contracting provide flexibility to help meet the demand. The Navy will continue to require the private sector and the Naval Shipyards to provide operational and combat ready ships and weapon systems required by the Fleet.

Current capacity and capability of the private sector ship repair industrial base are adequate to satisfy the national security interests of the United States. The Navy's goal is to maintain a viable private sector ship repair industrial base while balancing public shipyard workload to comply with Title 10.

Appendix A
List of MSRA and ABR Contractors

CONTRACTOR	TYPE	PORT AREA
BATH IRON WORKS CORPORATION	MSRA/ABR	BATH
ROCKLAND MARINE CORPORATION	ABR	BATH
ELECTRIC BOAT CORPORATION	MSRA/ABR	GROTON
GUAM SHIPYARD	MSRA/ABR	GUAM
AMERICAN INDUSTRIAL MARINE, INC.	ABR	GULF COAST
ATLANTIC MARINE, INC – MOBILE	MSRA/ABR	GULF COAST
AVONDALE INDUSTRIES, INC., SHIPYARDS DIVISION	MSRA/ABR	GULF COAST
BENDER SHIPBUILDING & REPAIR COMPANY, INC.	MSRA/ABR	GULF COAST
BOLAND MARINE & MANUFACTURING CO., INC.	ABR	GULF COAST
BOLLINGER SHIPYARDS, LOCKPORT, LLC	ABR	GULF COAST
BUCK KREIHS COMPANY, INC.	ABR	GULF COAST
COLUMBIA RESEARCH CORPORATION	ABR	GULF COAST
DIXIE MACHINE WELDING & METAL WORKS, INC.	ABR	GULF COAST
HALTER MARINE, INC. - MOSS POINT DIV.	MSRA/ABR	GULF COAST
INDUSTRIAL MAINTENANCE AND MACHINE, INC.	ABR	GULF COAST
INGALLS SHIPBUILDING INC	MSRA/ABR	GULF COAST
KNIGHTS' MARINE & INDUSTRIAL SERVICES, INC.	ABR	GULF COAST
KNIGHTS' PIPING, INC.	ABR	GULF COAST
MASTER MARINE, INC.	ABR	GULF COAST
OCEAN TECHNICAL SERVICES, INC.	ABR	GULF COAST
STEINER SHIPYARD, INC.	ABR	GULF COAST
SWIFTSHIPS	ABR	GULF COAST
TEXTRON MARINE & LAND SYSTEMS DIV. OF TEXTRON, INC.	ABR	GULF COAST
TIBBETTS BOAT WORKS	ABR	GULF COAST
UNITED STATES MARINE INC.	ABR	GULF COAST
WORLD WIDE MARINE SERVICES, INC.	ABR	GULF COAST
ANTEON CORP.	ABR	INGLESIDE
GULF COPPER GROUP, INC.	ABR	INGLESIDE
GULF COPPER SHIP REPAIR INC.	ABR	INGLESIDE
HOUSTON SHIP REPAIR, INC.	ABR	INGLESIDE
SOUTHWEST MARINE, INC. (INGLESIDE DIVISION)	ABR	INGLESIDE
ATLANTIC DRY DOCK CORPORATION	MSRA/ABR	JACKSONVILLE
ATLANTIC MARINE, INC. – JACKSONVILLE	MSRA/ABR	JACKSONVILLE
COAST ENGINE & EQUIPMENT COMPANY, INC. (CEECO, INC.)	ABR	JACKSONVILLE
COASTAL SHIP REPAIR, INC.	ABR	JACKSONVILLE
DETYENS SHIPYARDS, INC.	MSRA/ABR	JACKSONVILLE
GULF MARINE REPAIR CORPORATION	ABR	JACKSONVILLE
INTERMARINE USA (SAVANNAH YACHT & SHIP)	MSRA/ABR	JACKSONVILLE
METAL TRADES, INC.	MSRA/ABR	JACKSONVILLE
NORTH FLORIDA SHIPYARDS, INC.	MSRA/ABR	JACKSONVILLE
TAMPA BAY SHIPBUILDING & REPAIR CO.	MSRA/ABR	JACKSONVILLE
NEWPORT NEWS SHIPBUILDING AND DRYDOCK CORPORATION	MSRA/ABR	NEWPORT NEWS
ACME REPAIR COMPANY, INC.	ABR	NORFOLK
ADVEX CORPORATION	ABR	NORFOLK

Appendix A (Continued)
List of MSRA and ABR Contractors

CONTRACTOR	TYPE	PORT AREA
AEPCO, INC.	ABR	NORFOLK
ALLIANCE TECHNICAL SERVICES, INC.	ABR	NORFOLK
AMERICAN SHIPYARD COMPANY, LLC	MSRA/ABR	NORFOLK
AMSEC, LLC	ABR	NORFOLK
ANTEON CORP	ABR	NORFOLK
ASSOCIATED NAVAL ARCHITECTS, INC.	ABR	NORFOLK
ATLANTIC ORDNANCE & GYRO, INC.	ABR	NORFOLK
B & A MARINE COMPANY INC.	ABR	NORFOLK
BAE SYSTEMS, NORFOLK SHIPBUILDING & DRYDOCK CORP.	MSRA/ABR	NORFOLK
BAY METALS & FABRICATION INC	ABR	NORFOLK
COLONNA'S SHIPYARD, INC.	MSRA/ABR	NORFOLK
CUNNINGHAM MARINE HYDRAULICS CO., INC.	ABR	NORFOLK
DAVIS BOAT WORKS	ABR	NORFOLK
EARL INDUSTRIES, L.L.C.	MSRA/ABR	NORFOLK
EAST COAST REPAIR & FABRICATION, INC	ABR	NORFOLK
EASTERN TECHNICAL ENTERPRISES, INC.(BROOKLYN NY DIV)	ABR	NORFOLK
GOLTEN MARINE CO., INC.	ABR	NORFOLK
HOLMES BROTHERS ENTERPRISES, INC.	ABR	NORFOLK
KERNEY SERVICE GROUP, INC.	ABR	NORFOLK
LPI TECHNICAL SERVICES INC	ABR	NORFOLK
LYONS SHIPYARD, INC.	ABR	NORFOLK
MARINE HYDRAULICS INTERNATIONAL, INC.	MSRA/ABR	NORFOLK
MARLEN C. ROBB & SON BOATYARD & MARINA, INC.	ABR	NORFOLK
METRO MACHINE CORP.	MSRA/ABR	NORFOLK
MILCOM SYSTEMS CORPORATION	ABR	NORFOLK
NETWORK INDUSTRIES, LTD.	ABR	NORFOLK
NEWPORT NEWS INDUSTRIAL, INC.	ABR	NORFOLK
NORFOLK SHIP REPAIR & DRYDOCK CO., INC.	MSRA/ABR	NORFOLK
OCEANEERING	ABR	NORFOLK
PROMET MARINE SERVICES CORPORATION	ABR	NORFOLK
PURE WATER TECHNOLOGIES	ABR	NORFOLK
Q.E.D. SYSTEMS, INC.	ABR	NORFOLK
STEVENS TECHNICAL SERVICES, INC.	ABR	NORFOLK
TECNICO CORPORATION	MSRA/ABR	NORFOLK
UNIDYNE CORP.	ABR	NORFOLK
BAE SYSTEMS HAWAII SHIPYARDS, INC., (BAE-HIS)	MSRA/ABR	PEARL HARBOR
C & S SERVICES, INC.	ABR	PEARL HARBOR
HAWAII SHIPYARDS INC	ABR	PEARL HARBOR
HONOLULU MARINE, INC.	ABR	PEARL HARBOR
HSI ELECTRIC, INC.	ABR	PEARL HARBOR
MARISCO, LIMITED	ABR	PEARL HARBOR
PACIFIC SHIPYARDS INTERNATIONAL, LLC	ABR	PEARL HARBOR
CASCADE GENERAL, INC.	MSRA/ABR	PUGET SOUND

Appendix A (Continued)
List of MSRA and ABR Contractors

CONTRACTOR	TYPE	PORT AREA
EVERETT SHIPYARD INC	ABR	PUGET SOUND
FOSS SHIPYARD, d/b/a FOSS MARITIME COMPANY	ABR	PUGET SOUND
LAKE UNION DRY DOCK COMPANY	MSRA/ABR	PUGET SOUND
MAR COM, INC.	ABR	PUGET SOUND
MODUTECH MARINE, INC.	ABR	PUGET SOUND
PACIFIC MARINE FIELD SERVICES, LLC	ABR	PUGET SOUND
PUGLIA ENGINEERING, INC.	ABR	PUGET SOUND
TODD PACIFIC SHIPYARDS CORPORATION SEATTLE DIVISION	MSRA/ABR	PUGET SOUND
AL LARSON BOAT SHOP	MSRA/ABR	SAN DIEGO
AMSEC, LLC	ABR	SAN DIEGO
BAY CITY MARINE, INC.	ABR	SAN DIEGO
BAY SHIP & YACHT CO.	MSRA/ABR	SAN DIEGO
CONTINENTAL MARITIME OF SAN DIEGO, INC.	MSRA/ABR	SAN DIEGO
CONTROLS ENGINEERING MAINTENANCE CORP. (CEM-CORP)	ABR	SAN DIEGO
EPSILON SYSTEMS SOLUTION, INC.	ABR	SAN DIEGO
FRASER'S BOILER AND SHIP REPAIR, LLC	ABR	SAN DIEGO
HUD-MAC MARINE SERVICES	ABR	SAN DIEGO
MARITIME SOLUTIONS, LLC	ABR	SAN DIEGO
MILLER MARINE	ABR	SAN DIEGO
NATIONAL STEEL & SHIPBUILDING CO. (NASSCO)	MSRA/ABR	SAN DIEGO
PACIFIC DEFENSE SYSTEMS	ABR	SAN DIEGO
PACIFIC SHIP REPAIR AND FABRICATION, INC.	MSRA/ABR	SAN DIEGO
PACORD, INC.	ABR	SAN DIEGO
PROPULSION CONTROLS ENGINEERING, INC.	ABR	SAN DIEGO
SAN FRANCISCO DRYDOCK, INC.	MSRA/ABR	SAN DIEGO
SAN PEDRO BOAT WORKS, INC.	ABR	SAN DIEGO
SOUTH BAY BOAT YARD, INC.	ABR	SAN DIEGO
SOUTH BAY BOILER REPAIR, INC.	ABR	SAN DIEGO
SOUTHWEST MARINE, INC. (SAN DIEGO DIVISION)	MSRA/ABR	SAN DIEGO
SOUTHWEST MARINE, INC. (SAN PEDRO DIV.)	MSRA/ABR	SAN DIEGO
STONE BOAT YARD, INC.	ABR	SAN DIEGO
WILLARD MARINE, INC.	ABR	SAN DIEGO

Appendix B
Matrix of Certified Drydocks and Ship Classes

FACILITY	Ship Class	AGSS-555	APD-50	AS-39	CG-47	CV-63/67	CVN-65	CVN-68	CVN-70	DDG-51	DDG-964	FFG-7	LCC-19/20	LHA-1	LHD-1	LPD-4	LPD-17	LSD-41	MCM-1	MHC-51	MTS-535	NR-1	SSBN-726	SSN-21	SSN-23 (Only)	SSN-688	SSN-774
EAST COAST FACILITIES	Type																										
ATLANTIC MARINE FLORIDA, Mayport, FL MR 246	MR	✓	✓									✓							✓	✓		nn					
ATLANTIC MARINE FLORIDA, Mayport, FL AFDM-7	FL	✓	✓	xc	✓					✓	✓	✓				✓		xc	✓	✓	nn	nn				nn	nn st
BATH IRON WORKS, Bath, ME DD 3	FL	✓	✓	✓	xc					✓	✓	✓	✓	xc	xc	✓	✓	✓	✓	✓	nn	nn	nn	nn	nn	nn	nn
COLONNA'S SHIPYARD, Norfolk, VA DD 1	FL	✓	✓	xc	xc					xc		✓				✓		xc	✓	✓		nn					
DETYENS SHIPYARD, Charleston, SC DD-1	GR	✓	✓								st xc	✓				✓		xc	✓	✓	nn	nn				nn	nn
DETYENS SHIPYARD, Charleston, SC DD-2	GR	✓	✓							✓	st xc	✓				xc			✓	✓	nn	nn			nn st	nn	nn xc
DETYENS SHIPYARD, Charleston, SC DD-5	GR	✓	✓	✓						✓	✓	✓	✓			✓	xc	✓	✓	✓	nn	nn		nn	nn st xc	nn	nn
GENERAL DYNAMICS, Groton, CT GD 1	GR	✓	RC									RC							✓	✓	✓	✓	fba	✓	st sb	✓	✓
GENERAL DYNAMICS, Groton, CT GD 2	GR	✓	✓							st	xc	✓				✓			✓	✓	✓	✓	✓	✓	st sb	✓	✓
GENERAL DYNAMICS, Groton, CT GD 3	GR	✓	✓		✓					✓	xc	✓							✓	✓	✓	✓	✓	✓	✓	✓	✓
GD, Groton, CT, SHIPPINGPORT (ARDM-4)	FL	✓	✓									✓							✓	✓	✓	✓				✓	xc
METRO MACHINE CORP., Norfolk, VA "Speede"	FL	✓	✓	✓	✓					✓	✓	✓	✓	xc	✓	✓	✓	✓	✓	✓	nn	nn				nn	nn
NEWPORT NEWS, Newport News, VA DD 1	GR	✓	✓	✓	st					st	✓	✓				✓		✓	✓	✓	✓	✓				✓	
NEWPORT NEWS, Newport News, VA DD 2	GR	✓	✓	✓								st	✓	xc	st	✓	✓	✓	✓	✓	✓	✓				✓	
NEWPORT NEWS, Newport News, VA DD 4	GR	✓	✓									✓				✓			✓	✓	✓	✓				✓	xc
NEWPORT NEWS, Newport News, VA DD 10	GR	✓	✓	✓	xc					st		✓	xc	xc	xc	✓	✓	✓	✓	✓	✓	✓	fba	fba		✓	✓
NEWPORT NEWS, Newport News, VA DD 11	GR	✓	✓	✓	✓	✓	✓	✓	✓	st	✓	✓	✓	✓	st	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NEWPORT NEWS, Newport News, VA DD 12	GR	✓	✓	✓						st	st	✓	✓	✓	st	✓	✓	✓	✓	✓	✓	✓	fba	fba		✓	✓
NEWPORT NEWS, Newport News, VA DD 1 (FL)	FL	✓	✓	✓						✓	st	✓	✓			✓	✓	✓	✓	✓	✓	✓		st	st	✓	✓
BAE NORFOLK, Norfolk, VA "Titan"	FL	✓	✓	✓	✓					✓	✓	✓	✓	xc	xc	✓	✓	✓	✓	✓	nn	nn		nn	nn st	nn	nn
BAE NORFOLK, Norfolk, VA DD 1 "Old Dominion"	FL	✓	✓	xc	st					st	✓	✓				✓		✓	✓	✓	nn	nn				nn	nn
GULF COAST FACILITIES	Type																										
AVONDALE SHIPYARDS, Westwego, LA DD 1	FL	✓	✓	✓	✓	rb				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	nn	nn		nn	nn st	nn	nn
INGALLS SHIPBUILDING, Pascagoula, MS Floating	FL	✓	✓	✓	✓					✓	✓	✓	✓			✓	✓	✓	✓	✓	nn	nn			nn st	nn	nn
WEST COAST FACILITIES	Type																										
CASCADE GENERAL, Portland, OR DD 1(YFD-69)	FL	✓	✓		xc					xc	xc	✓				✓		xc	✓	✓		nn					
CASCADE GENERAL, Portland, OR DD 3	FL																										
GUAM SHIPYARD, Apra Harbor, Guam "Machinist"	FL	✓	✓	✓	st xc					✓	✓	✓	✓	xc	✓	✓	✓	✓	✓	✓	nn	nn		nn st		✓	nn
NATIONAL STEEL, San Diego, CA BD 1	GR	✓	✓																✓	✓		nn					
NATIONAL STEEL, San Diego, CA DD 2	FL	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	nn	nn				nn	nn
BAE SAN FRANCISCO, San Francisco, CA DD 2	FL	✓	✓										✓		✓	✓	✓	st	✓	✓		nn					
BAE SAN DIEGO, San Diego, CA DD 3	FL	✓	✓	✓	✓					✓	✓	✓	✓			✓		✓	✓	✓	nn	nn	nn	nn	nn st	nn	nn
TODD SHIPYARDS, Seattle, WA DD 1 (YFD-70)	FL	✓	✓		st					st	✓	✓				✓		xc	✓	✓		nn					
TODD SHIPYARDS, Seattle, WA AFDM-10	FL	✓	✓	xc	✓					✓	st xc	✓						xc	✓	✓	nn	nn				nn	nn

Appendix B (continued)
Legend for Drydocking Matrix

Facility Types:

FL Floating Dry Dock
GR Graving Dock
MR Marine Railway

Symbol/Abbreviation:

✓ Indicates that the ship will dimensionally fit in the dry dock at practical docking drafts and the ship's displacement is within the dock's certified capacity. Also may indicate that the ship or like ship has been safely docked previously which may have exceeded the certified capacity of the dock. The ship can be docked using standard docking practices. A blank indicates that a ship will not dimensionally fit at practical docking drafts or is unsuitable for other reasons.

[ ] Indicates that the ship/dock combination has not yet been verified using the latest assumptions.

Upper case abbreviation indicates that the hull will dimensionally fit, but it is impossible to dock the ship without dock modification/relocation.

FS	Fueling sponsons
PD	Prior docking, below light load
RC	Dock cover precludes docking
RM	Multiple restrictions

Lower case abbreviation indicates that the hull will dimensionally fit, and a potential docking capability/limitation exists. In some docks the blocking arrangement will have to be modified.

ba	Use of existing buoyancy assist modules (BAMs)
fba	BAMs could be designed to accommodate ship
hd	Hang dome over end of pontoon
hp	Hang propeller(s) over end of pontoon
nn	Not nuclear capable
rb	Bridge restriction
ri	Existing interferences must be removed
st	Use of special techniques to reduce required water depth such as installing moveable/hinged blocks (more than six)
sb	Use of special blocking arrangment reqired to meet certified limits
xc	Ship fits in dock, but exceeds the certification capability limits
xtr	Tray removal docking exceeds the certification capability limits

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June 29 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-1102

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Appropriations Committee Report 110-37, the enclosed report provides the requested information on the Navy Expeditionary Combat Command. Additionally, as a follow-on to the Riverine Squadrons Report submitted to Congress in February 2007, this report is designed to provide a greater level of understanding for all current and planned expeditionary forces.

The Navy Expeditionary Combat Command was established in January 2006 to centralize management of current and future readiness, resources, manning, training, and equipping of Navy Expeditionary Forces under a single functional command. The command's primary role is to provide combat-ready units for Joint Force Maritime Component Commanders and Navy Component Commanders tasking across the wide range of joint and service-specific expeditionary missions.

The Department of the Navy's plan for Navy Expeditionary Combat Command, as reflected in this report, will provide the recapitalization and future budget planning required to effectively and efficiently sustain its current taskings from the Joint Force Maritime Component Commanders and Navy Component Commanders.

A similar letter has been sent to Chairmen Levin, Skelton and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June 29 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-2202

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Appropriations Committee Report 110-37, the enclosed report provides the requested information on the Navy Expeditionary Combat Command. Additionally, as a follow-on to the Riverine Squadrons Report submitted to Congress in February 2007, this report is designed to provide a greater level of understanding for all current and planned expeditionary forces.

The Navy Expeditionary Combat Command was established in January 2006 to centralize management of current and future readiness, resources, manning, training, and equipping of Navy Expeditionary Forces under a single functional command. The command's primary role is to provide combat-ready units for Joint Force Maritime Component Commanders and Navy Component Commanders tasking across the wide range of joint and service-specific expeditionary missions.

The Department of the Navy's plan for Navy Expeditionary Combat Command, as reflected in this report, will provide the recapitalization and future budget planning required to effectively and efficiently sustain its current taskings from the Joint Force Maritime Component Commanders and Navy Component Commanders.

A similar letter has been sent to Chairmen Inouye, Skelton and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June 29, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-2504

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Appropriations Committee Report 110-37, the enclosed report provides the requested information on the Navy Expeditionary Combat Command. Additionally, as a follow-on to the Riverine Squadrons Report submitted to Congress in February 2007, this report is designed to provide a greater level of understanding for all current and planned expeditionary forces.

The Navy Expeditionary Combat Command was established in January 2006 to centralize management of current and future readiness, resources, manning, training, and equipping of Navy Expeditionary Forces under a single functional command. The command's primary role is to provide combat-ready units for Joint Force Maritime Component Commanders and Navy Component Commanders tasking across the wide range of joint and service-specific expeditionary missions.

The Department of the Navy's plan for Navy Expeditionary Combat Command, as reflected in this report, will provide the recapitalization and future budget planning required to effectively and efficiently sustain its current taskings from the Joint Force Maritime Component Commanders and Navy Component Commanders.

A similar letter has been sent to Chairmen Levin, Inouye and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June 29, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-3812

Dear Mr. Chairman:

As directed by the Fiscal Year 2007 Senate Appropriations Committee Report 110-37, the enclosed report provides the requested information on the Navy Expeditionary Combat Command. Additionally, as a follow-on to the Riverine Squadrons Report submitted to Congress in February 2007, this report is designed to provide a greater level of understanding for all current and planned expeditionary forces.

The Navy Expeditionary Combat Command was established in January 2006 to centralize management of current and future readiness, resources, manning, training, and equipping of Navy Expeditionary Forces under a single functional command. The command's primary role is to provide combat-ready units for Joint Force Maritime Component Commanders and Navy Component Commanders tasking across the wide range of joint and service-specific expeditionary missions.

The Department of the Navy's plan for Navy Expeditionary Combat Command, as reflected in this report, will provide the recapitalization and future budget planning required to effectively and efficiently sustain its current taskings from the Joint Force Maritime Component Commanders and Navy Component Commanders.

A similar letter has been sent to Chairmen Levin, Skelton and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

Navy Expeditionary Combat Command (NECC) Equipment Capitalization / Recapitalization Requirements

PREPARED BY

Chief of Naval Operations
Director, Expeditionary Warfare Division (OPNAV N85)
2000 Navy Pentagon
Washington DC 20350

June 2007

Table of Contents

Section **Page**

Table of Figures..... 2

Report Requirement..... 3

Significant Operations and Accomplishments.....6

Requirements for Recapitalization of Each NECC Force..... 8

Requirements for Equipping New and Planned NECC Forces 10

Description of How Requirements will be Addressed In Fiscal Year 2008 Budget Submission and Future Budget Requests..... 11

NECC Budget & Shortfalls.....14

Detailed NECC Recapitalization Requirements Spreadsheet.....Attachment 1

Table of Figures

Figure 1 – NECC Functions & Capabilities 4

Figure 2 – NECC Organization and Mission 5

Figure 3 – NECC Support to JFMCC Environment 6

Figure 4 – NECC Recapitalization Requirement Table 14

Figure 5 – NECC Recapitalization Summary Table 14

Report Requirement

Senate Appropriations Committee Report 110-37 (Fiscal Year 2007 Supplemental) Section 361(e) of Fiscal Year 2007 directs the following:

"The Committee therefore directs the Secretary of the Navy to submit a report to the congressional defense committees no later than June 15, 2007, which sets forth the requirements for the following:

(A) The requirements for recapitalizing each of the NECC forces

(B) The requirements for equipping new and planned NECC forces

(C) A description of how those requirements will be addressed by Fiscal Year 2008 budget submission and future budget requests"

Background

In January 2006, the Chief of Naval Operations (CNO) established the Navy Expeditionary Combat Command (NECC) to provide oversight of the current Navy expeditionary forces and to develop new capabilities to address emerging missions in the rapidly evolving maritime security environment. NECC's mission enables the Navy to better balance its force across the blue to brown-water maritime environments, ensuring effective Navy expeditionary warfighting, closing capability gaps, and aligning seams in global maritime security operations (MSO). NECC's purpose is three-fold:

(1) To centrally organize, man, train, equip, and maintain the existing Navy expeditionary forces, including the Naval Construction Force (NCF), Navy Explosive Ordnance Disposal (EOD) Groups, Maritime Expeditionary Security Force (MESF)/Naval Coastal Warfare (NCW) Groups[1], Mobile Diving and Salvage (MDS) Units, Navy Expeditionary Logistics Support Group (NAVELSG), and Combat Camera to deliver more effective combat support and combat service support capability.

(2) To establish and coherently organize new and evolving expeditionary warfighting capabilities, including riverine, maritime civil affairs, expeditionary foreign military training, maritime expeditionary security, management of in lieu of (ILO) forces, enhanced support for humanitarian assistance, civil military operations and crisis response operations, and other emerging missions, to support MSO around the world.

(3) To serve as the single process owner for the man, train, equip, deploy and redeploy functions for all Navy Individual Augmentee (IA), ILO, and Ad Hoc units.

NECC combines the Navy's expeditionary forces under a single operational commander with the capability to conduct operations across the full spectrum of maritime expeditionary operations, including maritime security operations; theater security cooperation support; security assistance; shaping operations; and stability,

[1] In 2007, NECC will be transitioning existing Naval Coastal Warfare (NCW) units to MESF - a more capable, adaptable, and ready force. This reorganization will reshape current structure into a mission-focused organization that has the capability to meet new and evolving operational requirements in both peacetime and war.

security, transition, and reconstruction (SSTR) operations. As such the NECC Force will deliver a wide range of capabilities to effectively execute MSO as summarized below:

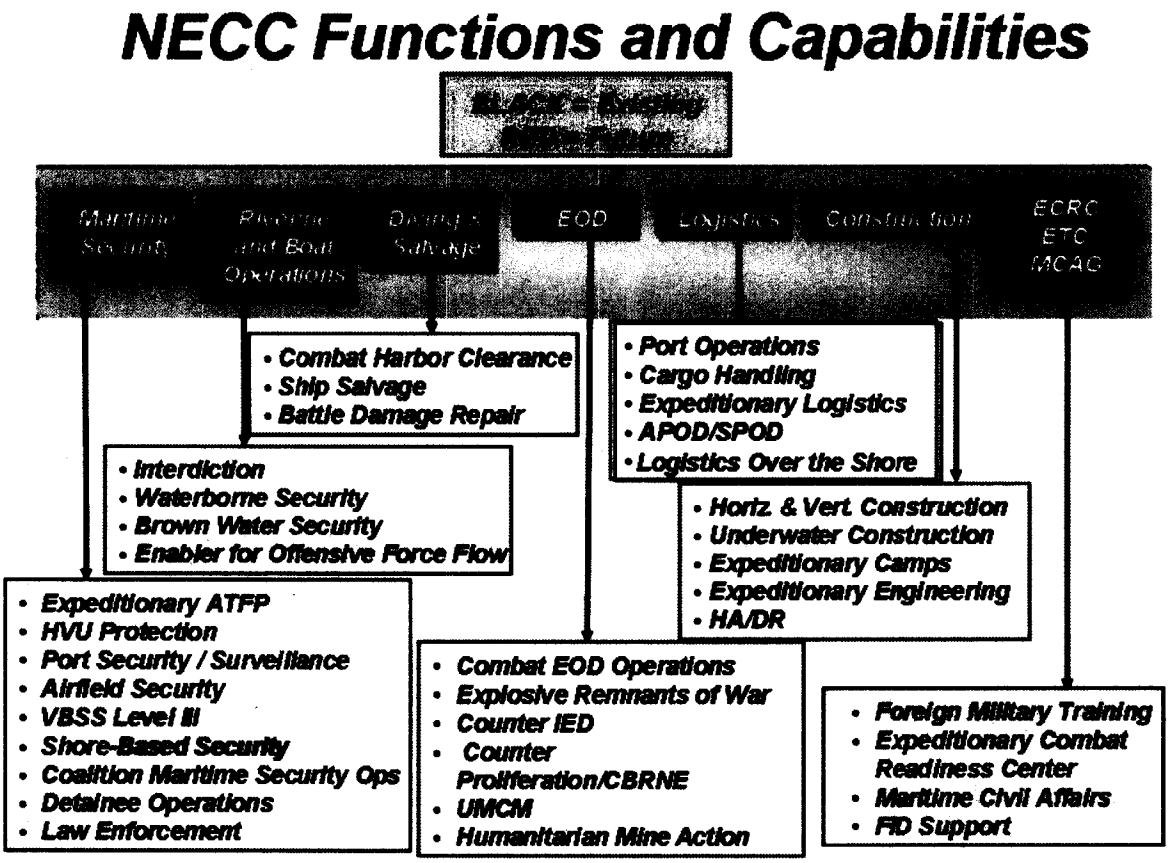


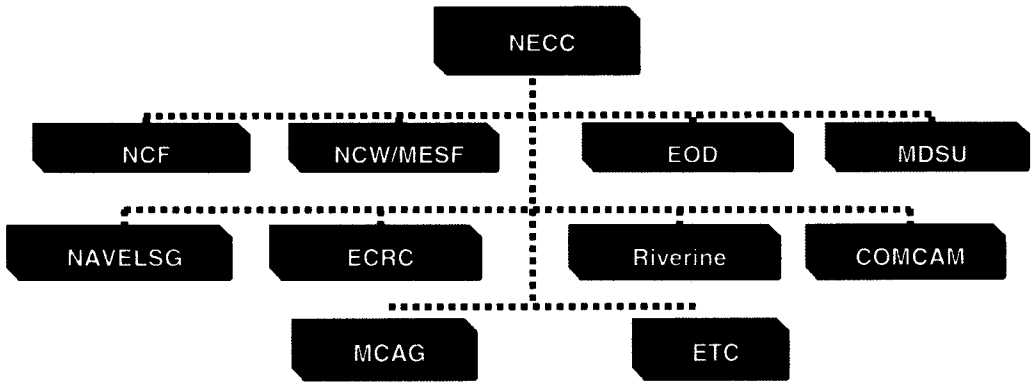
Figure 1 – Navy Expeditionary Combat Command Functions and Capabilities

Mission

NECC's mission is to organize, man, train, equip, and maintain Navy forces to operate in an expeditionary environment to:

- Provide a secure area for forces and logistics to flow ashore from the sea base and operate through the full continuum of environments from blue water to ashore
- Support naval and joint combat forces with EOD, expeditionary engineering and construction, mobile diving and salvage, riverine operations, expeditionary logistics, maritime civil affairs, expeditionary training, and maritime security/force protection
- Use the distributed capability of assigned forces to extend Joint Forces Maritime Component Commander/Navy Component Commander (JFMCC/NCC) domain awareness to the near-coast, inshore, and riparian environments

NECC Force Organizations and Missions



Command	Title	Mission
NCF	Naval Construction Force	Provides contingency construction support throughout the AOR to include forward operations base construction and operation, bridge/airfield maintenance, fleet hospital set-up and operations, underwater construction and disaster relief
NCW/MESF	Maritime Expeditionary Security Force	Conducts security operations in support of Navy Component Commander (NCC)/Joint Force Maritime Component Commander (JFMCC) in order to defeat Level I and II Threats in the near-coast, inshore, and harbor/port environments
EOD	Explosive Ordnance Disposal	Detect, locate, identify render safe, and dispose of unexploded explosive ordnance (UXO), counter improvised explosive devices (IEDs), and disarms underwater explosives, such as subsurface mines
MDSU	Mobile Diving and Salvage Unit	Performs expeditionary diving and salvage operations, battle damage repair, harbor clearance, and fleet support
NAVELSG	Naval Expeditionary Logistics Support Group	Provides support for port and air cargo handling missions, customs inspections, and ordnance reporting and handling
ECRC	Expeditionary Combat Readiness Center	Train, equip, certify, deploy, provide oversight, reach-back and redeploy Navy individual Augmentees, in-lieu-of individuals and provisional units deploying for non-traditional expeditionary missions in support of the Global War on Terrorism
NRG	Navy Riverine Group	Establishes and maintains control of rivers and waterways for military and civil purposes, denies their use to hostile forces, and destroys waterborne hostile forces or personnel
COMCAM	Combat Camera, Atlantic	Conducts counterterrorism, psychological operations, information operations, battle damage assessment, force protection. Support to; medical, investigative, historical documentation, intelligence gathering support, and public affairs
MCAG	Maritime Civil Affairs Group	Integrates both Department of Defense (DoD) and non-DoD initiatives to provide Civil Military Operations focused on the maritime and near-coast environments
ETC	Expeditionary Training Command	Supports Combatant Commanders' Theater Security Cooperation efforts by delivering timely, focused, and customized training to designated foreign country military, civil and security personnel Host Nations to govern and protect themselves and their AOR from enemy forces

Figure 2 – Navy Expeditionary Combat Command Force Organization and Mission

NECC forces bring special skill sets and operational focus to MSO. The guiding principle of this force will be to establish relationships and ensure access across the expeditionary environment. From the sea base, across the near-coast littoral, on the inland waterways and ashore, NECC forces will deliver critical and unique capabilities for joint forces operating in support of national security objectives worldwide. NECC forces will provide distributed capability of assigned forces to extend JFMCC/NCC domain awareness and influence in the near-coast, inshore, and riparian environments.

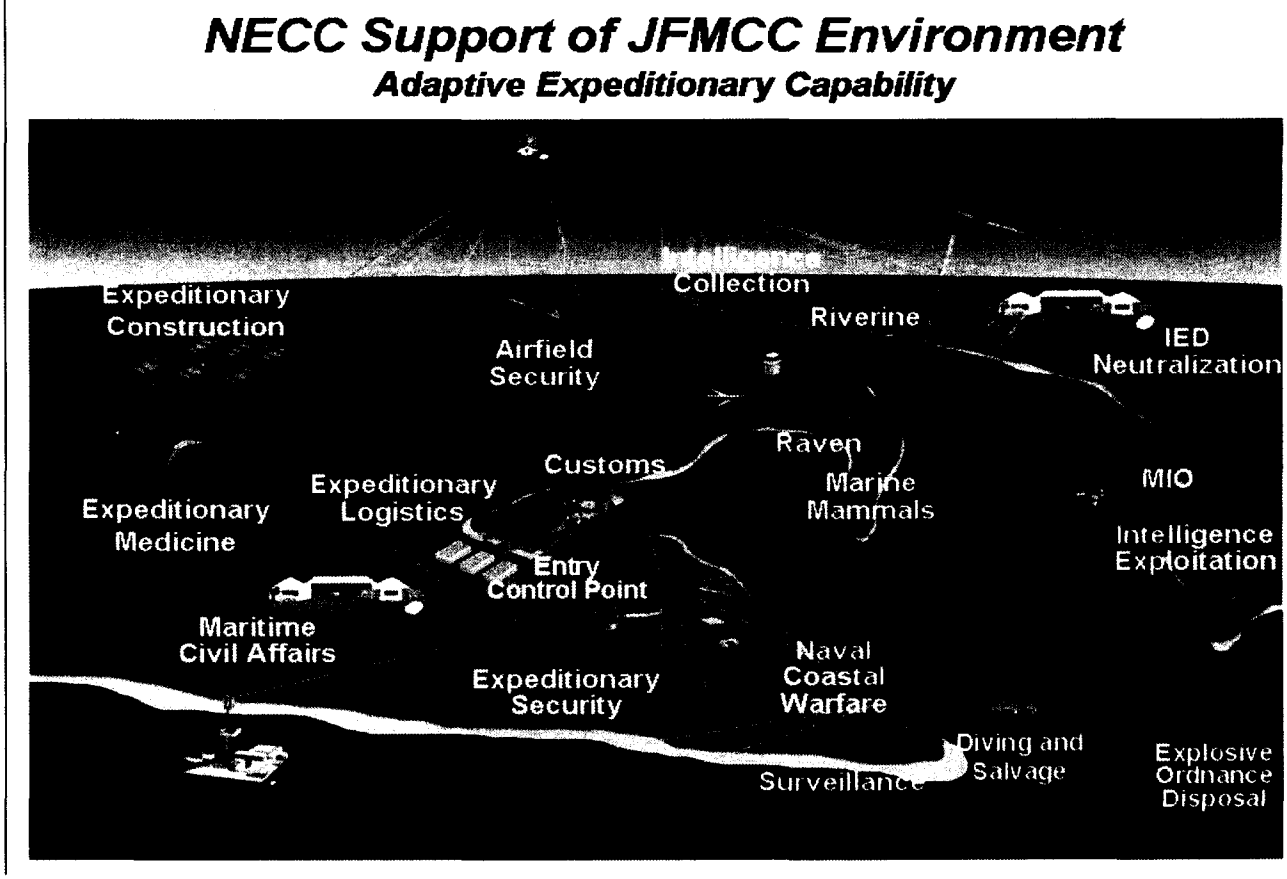


Figure 3 – Navy Expeditionary Combat Command Support to JFMCC Environment

Significant Operations and Accomplishments

Today, NECC is the functional type commander (TYCOM) for Navy expeditionary forces with Title X responsibilities for manning, training, and equipping approximately 40,000 active duty and reserve Sailors, or 12% of the total Navy force. The following significant operations and accomplishments highlight NECC's vital role in the Navy's contribution to our nation's defense.

Naval Construction Force, comprised of 9 active[2] and 12 reserve NCF battalions, continues operations throughout Iraq and Kuwait with 2,600 Seabees currently deployed worldwide, which is 35% of the active force. NCF completed airstrip improvements in Afghanistan and supported the Army's 10th Mountain Division by constructing outposts, shower and berthing facilities. Other NCF operations include Humanitarian Relief in Pakistan and infrastructure improvements in Indonesia, Bangladesh, East and West Timor, and the Philippines following the 2005 Tsunami disaster. NCF detachments provided critical repairs to impoverished medical facilities during USNS Mercy's 2006 humanitarian deployment. Other projects included construction of base camps; road, airfield and

[2] Figure reflects the addition of the 9th NCF battalion programmed in fiscal year 2008 budget submission.

bridge repairs; building renovations; and force protection projects such as hardened dining facilities and medical/surgical facilities.

Naval Coastal Warfare/Maritime Expeditionary Security Force (MESF), is comprised of one active, five blended and four reserve squadrons. MESF maintains a continuous presence in the Persian Gulf, protects strategic shipping in-transit to strategic port of embarkation / debarkation (SPOE/SPOD), and provides point and area defense to SPOE/SPOD and critical offshore infrastructure protection. Currently there are expeditionary detachments deployed worldwide that provide maritime security for critical economic infrastructure and designated high value assets. The assets support Operations Vigilant Mariner (OVM), Enduring Freedom (OEF), and Iraqi Freedom (OIF) in the Pacific Ocean, Mediterranean Sea, Red Sea, and Persian Gulf. In response to 2005's catastrophic tsunami, MESF units provided critical afloat / ashore security in support of USNS Mercy's 2005 and 2006 humanitarian deployments.

Explosive Ordnance Disposal (EOD), comprised of 76 active[3] and 14 reserve detachments, continues operations and support for Combined Joint Task Force (CJTF) TROY and Operation Iraqi Freedom (OIF). It supports Navy and joint requirements for Operation Enduring Freedom (OEF) in Afghanistan, with 41 detachments currently deployed or providing operational support. Navy EOD forces are the vanguard of critical counter-IED efforts in Iraq. They have responded to thousands of IED and unexploded ordnance (UXO) incidents since the beginning of OIF.

Mobile Diving and Salvage Unit (MDSU), comprised of 17 active detachments, continues to support COMFIFTHFLT diving and salvage requirements. It performed Humanitarian Aide/Disaster Relief (HA/DR) for hurricane Katrina, and conducted Joint POW/MIA Accounting Command (JPAC) recovery mission. MDSU augmented EOD detachments aboard CSGs and provided AT/FP diving services throughout the world.

Navy Expeditionary Logistics Support Group (NAVELSG), comprised of one active and 13 reserve battalions, maintains deployed Navy Customs Battalions to both Iraq and Kuwait in support of the various customs missions for OIF. Additionally, Port Groups CHARLIE, DELTA and ECHO were mobilized and deployed for cargo operations, including Mobile Air Cargo Handling Teams in Kuwait and Iraq. There are five units currently deployed to CENTCOM AOR: NAVELSG FWD HQ, NAVELSG Port Group, and NAVELSG Marine Air Cargo Handling. Customs Det Sierra and a Cargo Transfer Platoon deployed in direct support of Army logistics in Iraq.

Expeditionary Combat Readiness Center (ECRC) was established and organized as the single process owner for manning, training, equipping, deploying, and redeploying functions for all Navy Individual Augmentee (IA) and Ad Hoc forces deploying to the CENTCOM AOR in 2006. In the past year, ECRC established Navy presence at all Army training sites in Kuwait, Iraq, and

[3] Total reflects fiscal year 2008 budget submission incremental increase of active detachments across the FYDP.

Afghanistan. It assumed administrative control of over 10,000 Sailors filling IA(s) and Provisional Units in the CENTCOM AOR.

Navy Riverine Group (NRG) One was established in May 2006 to provide oversight of three active riverine squadrons. Riverine Squadron (RIVRON) One completed initial manning, outfitting and certification training in February 2007, and is currently deployed to Iraq. Two additional RIVRONs will be established in 2007 with both squadrons reaching full operational capability (FOC) by 2010.

Combat Camera, Atlantic realigned under COMNECC in October 2006. It supported U.S. Central Command OIF/OEF requirements by providing teams to Iraq, Bahrain, and the Horn of Africa for a variety of Information Operations, historic/archival documentation, and public affairs efforts.

Maritime Civil Affairs Group (MCAG) began training Maritime Civil Affairs Teams (MCAT) last year. Sailors trained in civil affairs have deployed as Individual Augmentees to Afghanistan and Iraq in civil affair units, joint staffs, and as members of Provincial Reconstruction Teams. The first MCAT will be ready for deployment in summer 2007.

Expeditionary Training Command (ETC) provides valuable Foreign Internal Defense support. The ETC focuses on providing training to foreign countries in NECC-type capabilities. ETC teams will be ready to deploy in summer 2007.

(A.) REQUIREMENTS FOR RECAPITALIZATION OF EACH NECC FORCE

NECC's priority is to prepare task-organized expeditionary maritime combat arms, combat support, and combat service support units that are aligned to be effective, flexible, and responsive to JFMCC/NCC demands. In order to accomplish their mission, NECC forces require the necessary resources to recapitalize legacy equipment and material associated with these operations, as well as disaster relief and other contingency operations world-wide. See Figure 4 and Attachment 1 for a breakdown of overall requirements.

Naval Construction Force (NCF). As a result of on-going combat operations in support of the War on Terror (WOT) and the lack of availability for spares and manufactured replacement parts, the need for recapitalization of NCF's equipment inventory is critical to sustain NCF warfighting capability and capacity. *Sixty-four percent of the existing equipment inventory is reaching its projected end of life-cycle expectancy. Increased OPTEMPO, as a result of recent combat operations in support of the WOT, have accelerated wear and tear on an already over-aged equipment inventory. With Combatant Commander (CCDR) demand for NCF capability remaining high, modernization and recapitalization resources are required to sustain NCF capability and capacity.*

Naval Coastal Warfare (NCW)/Maritime Expeditionary Security Force (MESF). Since the beginning of OIF, MESF has provided a continuous presence of security forces in the Persian Gulf. With multiple units completing their second or third deployments since 11 September 2001, MESF's accelerated commitments have out-

paced current funding programmed for sustainment. *Recapitalization resources are required to sustain MESF capability and capacity.*

Explosive Ordnance Disposal (EOD). The tactical adaptation of the enemy in this dynamic environment has caused EOD to react accordingly and improve operator survivability. The significant and urgent changes in Tactics, Techniques and Procedures (TTPs) in the CENTCOM AOR have led to changes to EOD equipment inventory allocation and distribution. High usage rate and changes to EOD inventory have out-paced previously programmed phased replacement funding. In addition, seven EOD detachments are being stood-up to meet high demand. Additional funding is needed to equip and sustain these new detachments. This additional funding will also provide enhanced capabilities and training for Unmanned Aerial Vehicles (UAV) and EOD Robotics used to meet increased operational tempo and evolving threats. *An increasingly high demand signal and routine harsh operating environment projected throughout the FYDP has significantly reduced the service life of equipment and programmed systems. Recapitalization resources are required to sustain EOD capability and address emerging requirements to counter new and evolving threats.*

Mobile Diving and Salvage Units (MDSU). Hurricane Katrina recovery operations and OIF's harsh operating environment have significantly reduced the service life of equipment and programmed systems. ARS and T-ARS converted to Military Sealift Command (MSC), and existing afloat MDSU equipment inventory is being updated to reflect new ashore / afloat requirements. These requirements include armored vehicles and salvage and diving gear previously onboard ARS. *Recapitalization resources are required to sustain MDSU capability, ARS to T-ARS conversion, and support for contingency diving and salvage operations.*

Naval Expeditionary Logistics Support Group (NAVELSG). The increased equipment requirement to support reserve battalion training/mobilization to meet 1.25 battalion CENTCOM presence diminished available inventory. In addition, new developments and evolving threats indicate current armor is insufficient for tactical vehicle protection. A critical requirement is the *replacement of personal combat equipment, material handling equipment and support items damaged or worn in support of OIF. Recapitalization resources are required to sustain NAVELSG capability and capacity.*

Navy Riverine Group (NRG). The decision to establish NECC's Riverine Force (comprised of Riverine Group [RIVGRU] ONE and component Riverine Squadrons [RIVRONs] ONE, TWO and THREE) was made in support of the Chief of Naval Operations Guidance 2006. RIVGRU ONE and RIVRON ONE were established on 25 May 2006. RIVRON TWO was established on 02 February 2007 and RIVRON THREE is scheduled to be established in June 2007. RIVRON ONE deployed in support of Operation Iraqi Freedom (OIF) in February 2007 and is scheduled to be relieved by RIVRON TWO in late summer/early fall 2007. RIVRON THREE will relieve RIVRON TWO in spring 2008. The Riverine force is projected to remain in the initial outfitting phase through Fiscal Year 2009. *Recapitalization of the Riverine Force is planned for future budget requests in accordance with established or estimated service life expectations for major items of equipment, with emphasis on the timely replacement of RIVRON ONE's legacy crafts obtained from the Marine Corps.*

Combat Camera (COMCAM), Atlantic. In support of CENTCOM OIF/OEF requirements, COMCAM is providing teams to Iraq, Bahrain, and the Horn of Africa. In addition, COMCAM has provided underwater documentation to support the Joint POW/MIA Accounting Command and the Republic of Palau during bi-lateral recovery operations. COMCAM provides crucial photographic documentation/history of Navy combat missions, as well as chronicling other Joint Force operations when tasked by CCDR. *Combat Camera equipment recapitalization is required to replace worn/damaged gear not repairable through depot maintenance facilities.*

(B.) REQUIREMENTS FOR EQUIPPING NEW AND PLANNED NECC FORCES

NECC is to establish and coherently organize new and evolving expeditionary warfighting capabilities, including riverine, maritime civil affairs, expeditionary foreign military training, maritime expeditionary security, management of in lieu of (ILO) forces, enhanced support for humanitarian assistance, civil military operations and crisis response operations, and other emerging missions to support MSO around the world. NECC's contribution to the full spectrum of existing expeditionary missions and evolving new capabilities is essential to supporting national strategic objectives, both abroad and for the homeland. To fulfill their new responsibilities, NECC requires the necessary resources to properly equip new expeditionary forces.

Naval Coastal Warfare (NCW)/Maritime Expeditionary Security Force (MESF). MESF provides a focused structure that can adapt to new and emerging maritime security missions. *MESF will be trained and equipped to conduct Level III Visit, Board, Search and Seizure (VBSS), Detention Operations, and to support Theatre Security Cooperation Operations. MESF provides Navy and joint commanders capability in these critical mission areas.* MESF implementation provides the Navy an essential first step in establishing a dedicated and adaptable maritime security force essential to today's Maritime Security Operations. MESF provides a structure to establish one standard for training, certification, and Training, Tactics and Procedures. It will improve the overall security readiness and capability of the Navy.

Navy Riverine Group (NRG). The current goal is for the Riverine force to achieve Full Operational Capability (FOC) status by fiscal year 2010. Achieving this goal requires that sufficient resources be provided to support procurement of all baseline equipment required by the Force no later than fiscal year 2010. The 2007 budget submission included a request for funds to establish a modest Riverine capability beginning in fiscal year 2007. The decision to accelerate the establishment of a Riverine force into fiscal year 2006 and increase the capacity of that force required funding for initial outfitting to be reprogrammed from existing resources in fiscal year 2006. Fiscal year 2006 reprogramming provided approximately 17% of the total investment estimated to fully outfit the Riverine force. Additional funding support for initial outfitting was included in the fiscal year 2006 Supplemental request. Approximately 50% of that request was approved by conference, but higher priority requirements redirected those funds before release to the Navy. *In fiscal year 2007 requested funding for the Riverine Force (2007 budget submission plus modest reprogramming) has provided an additional 15% of the total investment estimated to fully outfit the Riverine Force.* Additional funding support was included in the Fiscal Year 2007 Supplemental request and should provide as much as 30% of the total investment funding required for initial outfitting.

Expeditionary Combat Readiness Center (ECRC). The ECRC will be capable of training, equipping, certifying, deploying, and providing oversight for Navy Individual Augmentees (IA) and in lieu of (ILO)/ad-hoc units deploying for non-traditional expeditionary missions in support of Maritime Support Operations (MSO). The ECRC will establish and execute an oversight process, including deployment, reach-back, and redeployment support for Navy personnel assigned to missions outside traditional, Navy platform missions.

Expeditionary Training Command (ETC). The ETC will deliver to a global audience maritime expeditionary core capability training and instruction in the areas of naval construction, maritime civil affairs, maritime expeditionary security, Riverine, expeditionary logistics, explosive ordnance disposal, mobile diving and salvage, naval coastal warfare, and skill sets external to NECC. The goal will be to complement Foreign Internal Defense (training) efforts of Joint U.S. forces across the full spectrum of military operations. This mission will be carried out by teams of ETC personnel with the subject matter expertise *to train foreign audiences at a basic to intermediate level. ETC will conduct training throughout the maritime environment, and will account for the security force capabilities of ports, harbors, transportation centers, and high-value waterways critical to Host-Nations' interests.*

Maritime Civil Affairs Group (MCAG). MCAG will provide civil affairs with expertise focused on the maritime and near-coast environments in a way that will complement and expand, but not duplicate, current civil affairs capability in the U.S. Army and U.S. Marine Corps. MCAG will be trained on all core Civil Affairs functional areas, but *will maintain enhanced expertise in the areas of port operations, harbor and channel construction and maintenance, and marine and fisheries resources.* The value of MCAG forces is in the special skill sets and focus they bring to Civil Affairs efforts in the maritime environment. MCAG will provide the JFMCC with dedicated Maritime Civil Affairs specialists with the ability to conduct assessments and planning, interface with local officials, and provide a presence in ports and coastal regions that support military objectives, build partnerships, and result in better information/intelligence. In executing this mission, the MCAG will expand the operational commander's area of influence.

(C.) DESCRIPTION OF HOW REQUIREMENTS WILL BE ADDRESSED IN FISCAL YEAR (FY) 2008 BUDGET SUBMISSION AND FUTURE BUDGET REQUESTS

From inception, NECC has been tasked to deliver expeditionary capability under an aggressive timeline. The current FY2008 budget submission reflects the incremental increase to deliver NECC new capabilities and increased capacity as a result of ongoing combat operations in the CENTCOM AOR and global WOT contingency support.

Naval Construction Force (NCF). NCF must be capable of horizontal, vertical, and underwater construction and engineering in the NECC operational environment. This capability will also include C2, contingency contracting, and expeditionary reach back capability when required. In addition, NCF units are trained in defensive combat when required to support operations in high-threat environments. *The FY07 supplemental will be used to recapitalize existing force, and the FY08 budget submission will resource the addition of the 9th NCF battalion. Out-year funding will be*

used to maintain the recapitalization rate at nine years, which is the established industry standard for construction equipment.

Naval Coastal Warfare (NCW)/Maritime Expeditionary Security Force (MESF). As NCW transitions to the MESF, the expeditionary security provided by NCW units today must be capable of seaward security and surveillance. MESF will provide a single integrated security force capable of ground defense, airfield security/defense, rapid response, land convoy escort, surveillance and reconnaissance, waterborne defense, swimmer attack defense, port security and harbor defense, Vessel Board Search & Seizure (VBSS), vessel escort, embarked security, and additional operations such as detention operations, law enforcement, law and order, customs support, humanitarian assistance and civic support. *Out-year funding will be used to sustain two new boat detachments and five LVL III MIO/VBSS teams initiated in 2007; establish and sustain additional boat/security detachments required to fill-out and balance MESF squadrons post NCW realignment; and sustain MESF equipment inventory levels consistent with recapitalization rates and mission obligations.*

Explosive Ordnance Disposal (EOD). EOD forces must be able to detect, locate, identify, render safe, and dispose of UXO, improvised explosive devices (IEDs), or mines in support of maritime and contingency operations. Mobile EOD detachments must be ready to seamlessly integrate into and support various operational requirements, including carrier strike groups, expeditionary strike groups, contingency, integrated joint, M-HLS/D, mine warfare, and coastal warfare operations. High demand signal for EOD Forces and congruent harsh operating environment projected throughout the FYDP requires supplemental appropriations to reset/refresh the force. *Out-year funding will be used to establish seven new EOD detachments and associated equipment, while maintaining inventory levels consistent with recapitalization rates and future mission obligations.*

Mobile Diving and Salvage Units (MDSU). Mobile Diving and Salvage Units (MDSUs) shall be capable of planning, coordinating and conducting sustained salvage, battle damage assessment/repair, harbor clearance services/port recovery, and surface-supplied air, mixed gas and SCUBA diving operations in various bodies of water (open ocean, harbor, and beach surf /littoral areas). Two types of detachments are employed by MDSUs: Mobile Diving Salvage Detachments (MDSD) and Fleet Maintenance Diving Detachments (FMDD). These units will be able to rapidly deploy as specialized teams to conduct underwater emergency repair and salvage missions to recover ships, aircraft or other objects of value; conduct harbor clearance services to remove vessels and/or objects obstructing port access; and perform underwater ship's husbandry operations continuously until the recovery, repair, or salvage operation is completed. Hurricane Katrina recovery and OIF operating environment requires supplemental appropriations to reset/refresh the force. *Out-year funding will be used to support establishment of five new detachments; ARS to T-ARS conversion; and associated equipment inventory levels consistent with historical recapitalization rates and future mission obligations.*

Naval Expeditionary Logistics Support Group (NAVELSG). The Navy Expeditionary Logistics Support forces must be ready to provide cargo and ordnance handling services, supply support, and customs to forces deployed ashore. With increased OPTEMPO is support of GWOT, the *current supplemental is to re-*

fit/refresh/replace equipment that has been destroyed in support of OIF or is not economically feasible for repair. Out-year funding will maintain equipment inventory levels consistent with recapitalization rates and mission obligations.

Navy Riverine Group (NRG). The fiscal year 2008 budget submission includes procurement resources that would provide an additional 18% of the total investment funding estimated as required to fully outfit the Riverine Force. Future budget requests will include procurement resources to fund all remaining initial outfitting requirements necessary to achieve FOC by fiscal year 2010.

Combat Camera (COMCAM), Atlantic. COMCAM teams will be capable of providing photographic documentation covering air, sea, ground, and underwater operations of military forces engaged in combat, combat support operations, humanitarian operations, scientific research, and related peacetime activities, such as exercises and war games. COMCAM will receive requisite combat training, to include Survival, Evasion, Resistance, and Escape (SERE) training, desert survival and small arms training. This training will enable combat photographers to integrate with military forces on the ground without being a liability. At least one team will have trained divers capable of undersea still and video imaging. Due to the expanded COMCAM mission, *out-year funding will be used for requisite combat training, equipping COMCAM teams with required photographic equipment, and maintaining and recapitalizing COMCAM equipment to meet future mission obligations.*

Expeditionary Combat Readiness Center (ECRC). NECC is providing support for several functional areas of non-traditional Navy missions. ECRC must be capable of training, equipping, certifying, deploying, and providing oversight for Navy Individual Augmentees (IA) and in lieu of (ILO)/ad-hoc units deploying for nontraditional expeditionary missions in support of Maritime Security Operations (MSO). In addition, ECRC must increase individual and provisional unit combat readiness by ensuring *Navy personnel receive ground combat skills training and coordinating mission-specific training where required.* Concurrently, ECRC must provide *support to family members of military members assigned as IAs or to ILO/ad hoc units during deployment. Out-year funding will be used to recapitalize used equipment and support NECC's Warrior Transition Plan, which facilitates Sailors returning from IAs.*

Expeditionary Training Command (ETC). ETC will be responsible for delivering timely, focused, and customized maritime core training in support of the Joint Forces Maritime Component Commander/Navy Component Commander (JFMCC/NCC) shaping operations and Combatant Commander (CCDR) Theater Security Corporation Plan (TSCP). *Future funding requirements include training equipment* to strengthen Foreign Internal Defense missions and Theater Security Cooperation initiatives with friends and allies world-wide.

Maritime Civil Affairs Group (MCAG). Funding is required for cultural awareness training programs essential for the ability to focus on civil military operations, assessment, and planning in the maritime environment. Without *funding for training, near-immediate response capability for focused MCA support* will be severely hampered. *Out-year funding will support day-to-day operational requirements as well as maintain the operational equipment inventory.*

Units	Net Cap/Recap Requirement ($M)	FY07 Supplemental ($M, OPN)	FY08 ($M, OPN)	Delta ($M, OPN)
NCF	321.3	283.4	30.4	7.5
NCW/MESF	69.7	43.1	26.6	0.0
EOD	148.6	74.6	64.0	10.0
MDSU	65.3	51.9	1.3	12.1
NAVELSG	14.4	8.9	2.4	3.1
NRG	144.0	73.7	38.4	31.9
COMCAM	0.8	0.0	0.8	0.0
MCAG	7.3	2.7	2.0	2.6
ECRC	5.4	5.1	0.3	0.0
ETC	2.9	2.6	0.3	0.0

Figure 4 – NECC Recapitalization Requirement Table

Summary

NECC provides the operational commander tremendous capability and capacity supporting irregular warfare, major combat operations, security, stability, transformation and reconstruction (SSTR) missions. By aligning all the Navy expeditionary forces under NECC, Navy is better able to streamline operations, increase readiness, and maximize resources.

As of this report, six of the NECC forces project recapitalization via supplemental or out-year program budget appropriations. Four of the remaining forces are either new entities and will be effectively outfitted from inception, or possess negligible equipment lines that require recapitalization.

Force	NCF	NCW/ MESF	EOD	NRG	ELSG	MDSU	MCAG	ETC	ECRC	COMCAM
Recapitalization	✓	✓	✓	✓	✓	✓				

Figure 5 – NECC Recapitalization Summary Table

Net Capitalization/Recapitalization Requirement: $321.3M
FY07 Supplemental Purchase Plan: $284.4M-OPN
PB08 Purchase Plan: $30.4M-OPN

Small Craft	Total Quantity	Total Quantity	Total Quantity
RHIB FOR UNDERWATER CONSTRUCTION	4	4	
Tactical Vehicles			
ARMAMENT CARRIER HMMWV	78		28
HMMWV CARGO	776		12
MTVR	37		34
TRUCK, FIELD SERVICING	3		3
TRUCK MAINTENANCE UTILITY	80		3
Trucks			
SEMI LOW BED 55TON			13
Construction Equipment			
AC STORAGE TRANSFER TRAILER	2	2	
ARTICULATING DUMP	24	24	
BUILD MACHINE	4		
CHIPPER SPREADER	4	4	
COMPRESSOR 250CFM	80	60	
COMPRESSOR 750CFM	24	12	
CONCRETE BATCH PLANT	2	2	
CONCRETE PUMP TRUCK	4	4	
CONVEYOR BELT	16		
CRANE 40T	17	6	
CRANE 50T	6	17	
CRUSHER ROCK	3	2	
DISTRIBRITOR WATER 8K	15	7	
DITCHING EXCAVATOR AIR TRANSPORTABLE	10		
DRILL ROCK HYDRAULIC	8	8	
DRILL WELL 1500	3	3	
DUMP OFF-HI TRUCK	12	12	
ENVIRONMENTAL CONTROL UNIT	81	50	
EXCAVATOR	4		4

Construction Equipment	Total Quantity	Total Quantity	Total Quantity
EXCAVATOR CRAWL	20	20	
EXTRACTOR PILE	12		
FLOODLIGHT	26	26	
GENERATOR 10KW SKID	17	12	5
GENERATOR15KW SKID	41	30	11
GENERATOR 30KW SKID	163	142	21
GENERATOR 60KW SKID	98	80	18
GRADER	5		5
GRADER MOTOR	122	100	
HAMMER PILE	12		
HOT OIL HEATER WITH A/C PUMP	3	3	
LOADER SCOOP 2.5CY	40	50	
LOADER FULL TRUCK	47	40	
LOADER FULL-TRUCK			
LOADER SCOOP 2.5CUBIC YARDS	50		
LOADER WHEELED	28	28	
MIXER ASPHALT	3	3	
MIXER TRANSIT	6	6	
MIXER CONCRETE 11 CF	130		
MIXER TRANSIT	6		
PUMP CENTRIFUGE	174	106	
PUMP DIAPHRAGM	44		
ROLLER MOTOR	3		
ROLLER TAMP FT	7	7	
ROLLER VIBRATE	124	45	
SAW CONCRETE	2	2	
SAW RADIAL WOOD	160	140	20
SCRAPER TRACTOR 11CY	32	20	
SCARPER TRACTOR 14CY	40	10	5
SHOP MACH TRAILER	8	8	
SHOP MACHINE TRAILER	8		
SKID STEER	104	72	
SWEEPER BROOM	6		
SWEEPER MAGNETIC TOW	34		
TRACTOR	10		10
TRACTOR CRAWLER 105HP	104	52	

Construction Equipment	Total Quantity	Total Quantity	Total Quantity
TRACTOR CRAWLER 300HP	28	15	
TRACTOR CRAWLER195HP	112	46	
TRACTOR WELL SUPPORT	3	3	
TRACTOR WITH LOADER/BACKHOE	70	70	
TRACTOR WITH INDEPENDENT RPTO	16		
TRACTOR WITH LOADER/BACKHOE	58		
WASHER/SCREENING PLANT 75TPH	3	3	
WELDER ARC	171	144	27

Other Equipment	Total Quantity	Total Quantity	Total Quantity
ADR 300	15		15
BOTTOM DUMP TRAILER	25	25	
CONTAINER, REFRIGERATION	6		6
LAUNDRY UNIT	40	40	
LTT	36	36	
LTT-HC	26	26	
PANEL BOARD 10 KW	155	109	46
PANEL BOARD 15 KVA	102	69	33
PANEL BOARD 30 KVA	110	110	
PANEL BOARD 400 AMP	34	27	7
REEFER UNIT	4		4
REVERSE OSMOSIS WATER	83	3	3
REVERSE OSMOSIS WATER125 GPH	3	3	
SEMI LOW BED 55T	55	42	
SEMI STAKE 34T	100	100	
SIXCON FUEL PUMP	12		12
SIXCON FUEL TANK	41		41
SIXCON WATER PUMP	21	17	4
SIXCON WATER TANK	18		18
TANK, 10000 FUEL	18		18
TANK, 3000 FUEL	10		10
TANK, 3000 ONION	8		8
TENSION, FABRIC	7		7
TENSION, FABRIC 28x38	16	16	
TENSION, FABRIC 42x50	4	4	
TRAILER 13T	12	12	

Other Equipment	Total Quantity	Total Quantity	Total Quantity
TRAILER TANK 400G	75	75	
TRICON CONFIGURE D2A/D2B	9		
TRICON, ARMORY	42	42	
TRICON, BULK	20		20
TRICON, BULK FOUR DOOR	24		
TRICON, BULK TWO DOOR	910	541	9

Material Handling Equipment	Total Quantity	Total Quantity	Total Quantity
FORK TRUCK 50LB PRT	12	10	
FORK TRUCK 20LB PRT	62	34	
FORK TRUCK 12LB PRT	56	36	
FORK TRUCK 11LB PRT	232	148	

Net Capitalization/Recapitalization Requirement: $69.7M
FY07 Supplemental Purchase Plan: $43.1M-OPN
PB08 Purchase Plan: $26.6M-OPN

Small Craft	Total Quantity	Total Quantity	Total Quantity
34 FOOT PATROL BOAT	18	26	2
25 FOOT PATROL BOAT		8	
Tactical Vehicles			
TRUCK, CARGO-LSSV	2	2	1
Passenger Vehicles			
SEDAN	5		
SUBURBAN/EXCURSION	34	38	6
VAN, 15 PASSENGER	31	30	7
Trucks			
TRUCK, STAKE 20 FT BED	1	4	
TRAILER, WATER 400 GAL	1	1	
Construction Equipment			
FLOODLIGHT 6KW	13	13	12
GENERATOR, 15KW	5	5	2
GENERATOR, 30KW	3	3	5
Material Handling Equipment			
FORK TRUCK 6K	1		
FORK TRUCK 20K		41	2
FORK TRUCK 10K		8	

Net Capitalization/Recapitalization Requirement: $148.6M
FY07 Supplemental Purchase Plan: $74.6M-OPN
PB08 Purchase Plan: $64.0M-OPN

Small Craft	Total Quantity	Total Quantity	Total Quantity
RHIB 9 Meter			1
RHIB 7 Meter			5
Tactical Vehicles			
ARMAMENT CARRIER HMMWV	44	49	4
TRUCK, AMBULANCE-HMMWV	2	2	1
TRUCK, CARGO-LSSV	17	29	8
MTVR		1	1
MRAP		95	
Trucks			
TRUCK, STAKE 20FT BED	34	37	1
TRUCK, STAKE 14FT BED		2	4
TRAILER, WATER 400 Gal	11	11	3
TRAILER, HMMWV	5	2	1
Construction Equipment			
GENERATOR 60 KW	24	24	2
FLOODLIGHT SET 6KW TRAILER MOUNTED	8	7	1
WELDER ARC ELECTRIC TRAILER MOUNTED	7	7	1
Material Handling Equipment			
FORK TRUCK 2K	2		
EOD Equipment			
EOD ROBOTS			12
EOD DECISION SUPPORT SYSTEM			52
IED COUNTERMEASURES EQUIPMENT			60

EOD Underwater Equipment	Total Quantity	Total Quantity	Total Quantity
DIVER HULL INSPECTION NAVIGATION EQUIPMENT			26
EOD VERY SHALLOW WATER UUV			5

Net Capitalization/Recapitalization Requirement: $65.3M
FY07 Supplemental Purchase Plan: $51.9M-OPN
PB08 Purchase Plan: $1.3M-OPN

Small Craft	Total Quantity	Total Quantity	Total Quantity
22 FOOT BOSTON WHALER	22	11	1
RHIB 7 METER	15	4	
RHIB 9 METER	1		
LCU	1		

Tactical Vehicles			
ARMAMENT CARRIER HMMWV	65	75	
TRUCK, AMBULANCE	4	2	2
TRUCK, CARGO-LSSV		8	
MTVR	13	12	1
MRAP		62	

Passenger Vehicles			
BUS	4	4	
VAN, 15 PASSENGER	6	3	3

Trucks			
TRUCK, STAKE 20FT BED	5	6	
TRAILER, WATER 400 Gal	4	2	2
TRACTOR MTVR	7	1	6
SEMI-TRAILER	6	5	
SEMI-TRAILER 40 TON	1	1	
TRAILER, HMMWV	29	70	

Construction Equipment			
FLOODLIGHT 6KW	6	16	
ECU/GENERATOR COMBO	19		
GENERATOR, 30KW	16	17	2
GENERATOR, 60KW	4		
PUMPS	16		

Material Handling Equipment	Total Quantity	Total Quantity	Total Quantity
FORK TRUCK 6K	5		
FORK TRUCK 10K	2	1	1
FORK TRUCK 20K	2		

Net Capitalization/Recapitalization Requirement: $14.4M
FY07 Supplemental Purchase Plan: $8.9M-OPN
PB08 Purchase Plan: $2.4M-OPN

Tactical Vehicles	Total Quantity	Total Quantity	Total Quantity
ARMAMENT CARRIER HMMWV	12	4	2
TRUCK, FUEL	4	2	2
TRUCK, LSSV	9	8	
MRAP		6	

Trucks			
Truck, Stake 20ft Bed	31	15	5
Trailer, Water 400 Gal	21	2	7
TRUCK, TRACTOR	24	10	3
TRUCK, DUMP	5	3	2
TRUCK, TELEPHONE MAINTENANCE	4	4	
SEMI-TRAILER 20 TON	2	1	1
SEMI-LOWBED 55 TON	10	5	
TRAILER, HMMWV			5

Construction Equipment			
FLOOD LIGHT SET 5KW	24	6	6
FLOOD LIGHT SET 6KW	27		
GENERATOR, 10KW	14	4	4
GENERATOR, 30KW T	10	4	4
GENERATOR, 60KW	12	6	6
ROAD GRADER	6	3	1
LOADER	6	3	1
TRACTOR	6	3	1
PUMP	3		
TRUCK, SEPTIC CLEANER	6		

Material Handling Equipment	Total Quantity	Total Quantity	Total Quantity
FORK TRUCK 6 K	24		
FORK TRUCK LO PRO	4		
FORK TRUCK 10K	4		
FORK TRUCK 6K Electric	12		
FORK TRUCK, AIRCRAFT CARGO 25K	4	2	2
FORK TRUCK 4K	8		
FORK TRUCK 10K PRT	10		
FORK TRUCK 12K PRT	5		
FORK TRUCK, CONTAINER HANDLER 30K	1		
FORK TRUCK, CONTAINER 50K	18	2	3
FORK TRUCK, CONTAINER HANDLER 53K	5		
TRAILER, PALLET	12		

Net Capitalization/Recapitalization Requirement: $144.0M
FY07 Supplemental Purchase Plan: $73.7M
PB08 Purchase Plan: $38.4M

Small Craft	Total Quantity	Total Quantity	Total Quantity
RIVERINE TRANSPORT BOAT		8	5
RIVERINE ASSAULT BOAT		4	
Tactical			
LSSV	26	18	13
ARMAMENT CARRIER HMMWV	31	30	1
TRUCK, AMBULANCE	12	12	4
MTVR	50	61	13
MRAP		13	
Passenger			
TRUCK, CARRYALL	2		
TRUCK, VAN 15 PASSENGER	1		1
Trucks			
TRAILER, HMMWV	45	24	25
SEMI TRAILER- LOW BED	6	6	
TRAILER, WATER 400 GALLON	15	8	10
TRAILER, UTILITY ENVIRONMENTAL CONTROL UNIT		45	
Construction			
FLOODLIGHT SET 6KW	19	27	13
GENERATOR, 10KW	4		4
ELECTRIC POWER PLANT 1-10KW GENERATOR	6		
GENERATOR	3		
ECU/GENERATOR	89		12
TRAILER, WELDER	9	9	8
PUMP	11	3	3
STORAGE TANK	26	1	6

Material Handling Equipment	Total Quantity	Total Quantity	Total Quantity
FORK TRUCK 7-11K	6		1
FORK TRUCK 12K		7	

Net Capitalization/Recapitalization Requirement: $7.3M
FY07 Supplemental Purchase Plan: $2.7M-OPN
PB08 Purchase Plan: $2.0M-OPN

Tactical Vehicles	Total Quantity	Total Quantity	Total Quantity
ARMAMENT CARRIER HMMWV	20	2	4
MTVR	2	2	
MRAP		2	

Trucks			
TRAILER, WATER 400 Gal	2	4	4
TRAILER, HMMWV	20	1	10

Construction Equipment			
FLOOD LIGHTSET 6KW	4	2	2
ECU/GENERATOR	2		2

Material Handling Equipment			
FORK TRUCK, 6 K	2	2	2
FORK TRUCK 7-11K	2	2	2

Net Capitalization/Recapitalization Requirement: $5.4M
FY07 Supplemental Purchase Plan: $5.1M-OPN
PB08 Purchase Plan: $0.3M-OPN

Tactical Vehicles	Total Quantity	Total Quantity	Total Quantity
ARMAMENT CARRIER HMMWV	1	4	
MTVR	1		2
MRAP		6	
TRUCK, CARGO-LSSV		8	

Passenger Vehicles			
BUS, 36 PASSENGER	1		
TRUCK, CARRY ALL	6		

Trucks			
TRUCK, STAKE	1		
TRAILER, CARGO	1		
SEMITRAILER-LOWBEAD 55TON	1		

Construction Equipment			
GENERATOR 60 KW		6	
FLOODLIGHT SET 6KW TRAILER MOUNTED		6	
GENERATOR 30KW		4	
GENERATOR 10KW		4	
GRADER, ROAD		3	
LOADER, WHEEL		3	
TRACTOR, WITH LOADER/BACKHOE		3	

Material Handling Equipment			
FORK TRUCK 50K		2	
FORK TRUCK, AIRCRAFT CARGO 25K		2	

Net Capitalization/Recapitalization Requirement: $2.9M
FY07 Supplemental Purchase Plan: $2.6M
PB08 Purchase Plan: $0.3M

Tactical Vehicles	Total Quantity	Total Quantity	Total Quantity
ARMAMENT CARRIER HMMWV	6	6	Note: Expeditionary Training Center (ETC) has no Major End Item purchases for FY08.
Trucks			
TRAILER, HMMWV	1	1	
Material Handling Equipment			
FORK TRUCK 7-11	1	1	

Net Capitalization/Recapitalization Requirement: $0.8M
FY07 Supplemental Purchase Plan: $0.0M-OPN
PB08 Purchase Plan: $0.0M-OPN

Combat Camera has no Major End Items (MEI) requiring capitalization/recapitalization

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June14, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directs the Secretary of the Navy to report the preliminary findings of the F/A-18 A-D Service Life Assessment Program II to Congressional Defense Committees by June 15, 2007. The required information is provided as an attachment.

Please let me know if I can be of further assistance. A similar letter is being provided to Chairmen Inouye, Skelton, and Murtha.

Sincerely,

Donald C. Winter

Attachments:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June14, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directs the Secretary of the Navy to report the preliminary findings of the F/A-18 A-D Service Life Assessment Program II to Congressional Defense Committees by June 15, 2007. The required information is provided as an attachment.

Please let me know if I can be of further assistance. A similar letter is being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Donald C. Winter

Attachments:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June14, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directs the Secretary of the Navy to report the preliminary findings of the F/A-18 A-D Service Life Assessment Program II to Congressional Defense Committees by June 15, 2007. The required information is provided as an attachment.

Please let me know if I can be of further assistance. A similar letter is being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Donald C. Winter

Attachments:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

June14, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2007 Senate Armed Services Committee Report 109-254 directs the Secretary of the Navy to report the preliminary findings of the F/A-18 A-D Service Life Assessment Program II to Congressional Defense Committees by June 15, 2007. The required information is provided as an attachment.

Please let me know if I can be of further assistance. A similar letter is being provided to Chairmen Levin, Inouye, and Skelton.

Sincerely,

Donald C. Winter

Attachments:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

F/A-18 A-D Service Life Assessment Program II Preliminary Findings

Background:

The F/A-18 A-D Service Life Assessment Program II (SLAP II) is a two part assessment of the fatigue life of airframe structural elements affected by flight maneuvers based on actual usage. It provides an analytical foundation to determine the F/A-18 A-D service life extension that is feasible via inspections and structural modifications.

Findings:

- SLAP II flight loads analysis is 73% complete.
    - Efforts to date have focused on developing fatigue spectrums and analyzing the loads and stress that will determine the "safe life" of airframe structural elements in terms of flight hours.
    - Analytical results will be incrementally delivered in August through December 2007.
    - Modifications that extend the service life of airframe structural elements that do not meet the 10,000 flight hour safe life goal will be developed concurrently.
- The teardown of high-time fleet aircraft is 98% complete.
    - The teardown process has revealed fatigue cracks in the vertical tails, engine mount support structure, landing gear retract actuator, and stress corrosion cracks in the aft fuselage and inner wing panels. These conditions are not alarming and can be addressed through inspections or replacement of these elements as part of the planned Service Life Extension Program (SLEP).
    - This analytical effort must be completed before a comprehensive SLEP can be developed.

REPORT TO CONGRESS

EXTENT OF PROVISION OF TIMELY NOTICE OF LONG-TERM DEPLOYMENTS

PREPARED BY

CHIEF OF NAVAL PERSONNEL/
DEPUTY CHIEF OF NAVAL OPERATIONS (N1)

2 NAVY ANNEX

WASHINGTON, DC 20370

MAY 2007

REQUIREMENT

Section 548 of the John Warner National Defense Authorization Act for FY2007 directed the Secretary of Defense to submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the number of members of the Armed Forces (shown by service and within each service by reserve component and active component) who, during the period beginning on January 1, 2005, and ending on the date of the enactment of this Act, have not received at least 30 days notice (in the form of an official order) before a deployment that will last 180 days or more. With respect to members of the reserve components, the report shall describe the degree of compliance (or noncompliance) with Department of Defense policy concerning the amount of notice to be provided before long-term mobilizations or deployments.

1. Navy Assessment

This report cites the degree of compliance with the 30-day provision of timely notice of long-term deployments for Reserve Component Mobilizations and Active Duty Individual Augmentations. All possible efforts are expended to ensure members are afforded, at a minimum, 30 days advance notification. In fact, beginning in 2006, Navy has made substantial business process improvements resulting in greatly increased notification times to affected service members. As of March 2007, the average notification times have improved to over 45 days for members of the Reserve Component and over 60 days for Active Duty Individual Augmentees. Some short-notice, mission-critical Combatant Commander requirements preclude issuing orders with more than 30 days notification. In most of those cases, a volunteer who is fully aware of the short-notice deployment is sought to fill requirements that result in less than 30 days notification.

A. Navy Reserve Component (RC) Mobilization.

Notification timelines for members of the Reserve Component during the period from 01 January, 2005 through September, 2006 were implemented in accordance with Paragraph 5.10.5, DODD 1235.10, September 23, 2004 cited below:

"5.10.5. Maximize the predictable use of RC forces by notifying Reserve members early that they are being considered for activation and by issuing mobilization orders as soon as it is operationally feasible to do so. The goal is to provide orders to the activating members at least 30 days prior to the report date. This goal does not apply to units and individuals that provide capabilities in the early stages of an operation that have procedures in place to deploy in less than 30 days without negatively affecting their families or employers. Ensure the existence of a system to document and track the timeliness of the issuance of mobilization orders in relation to the date of mobilization. "

The following table cites the degree of compliance with the 30 day notification goal for members of the Reserve Component who are mobilized from 01 January 2005 through September 2006:

RC Mobilization Notification

Mobilization Orders	Count	%	Average Notification (Days)
< 30 days	4716	45.03	16.8
30 + days	5757	54.97	42.2
Totals:	10473	100	30.8

Reasons for non-compliance within the Reserve Component:

- Short-notice Latest Arrival Date (LAD) requirements received from Combatant Commanders preclude our ability to write orders with greater than 30 days notification.

- Mobilization Delays, Deferments, and Exemptions that require short-notice back-fills in order to meet combatant commander requirements.

- Mobilization cancellations due to lack of member qualification (medical, dental, administrative, etc.) that require short-notice back-fills in order to meet combatant commander requirements.

- Mobilization of volunteers requesting immediate mobilization with knowledge and concurrence of less than 30 days notice.

In cases of non-compliance, every effort is made to minimize the impact to members, their families, and employers. In most cases, a volunteer who is fully aware of the short-notice notification is sought to fill the short-notice mobilization requirement.

B. Navy Active Component (AC) Individual Augmentation (IA)

The following table cites the degree of compliance with the 30 day notification for members of the Active Component performing Individual Augmentation assignments from 01 January 2005 through September 2006:

IA Notification

Augmentation Orders	Count	%	Average Notification
< 30 days	938	27.06	17.4
30 + days	2528	72.94	40.9
Totals:	3466	100	40.1

Reasons for non-compliance for the Active Component Individual Augmentees:

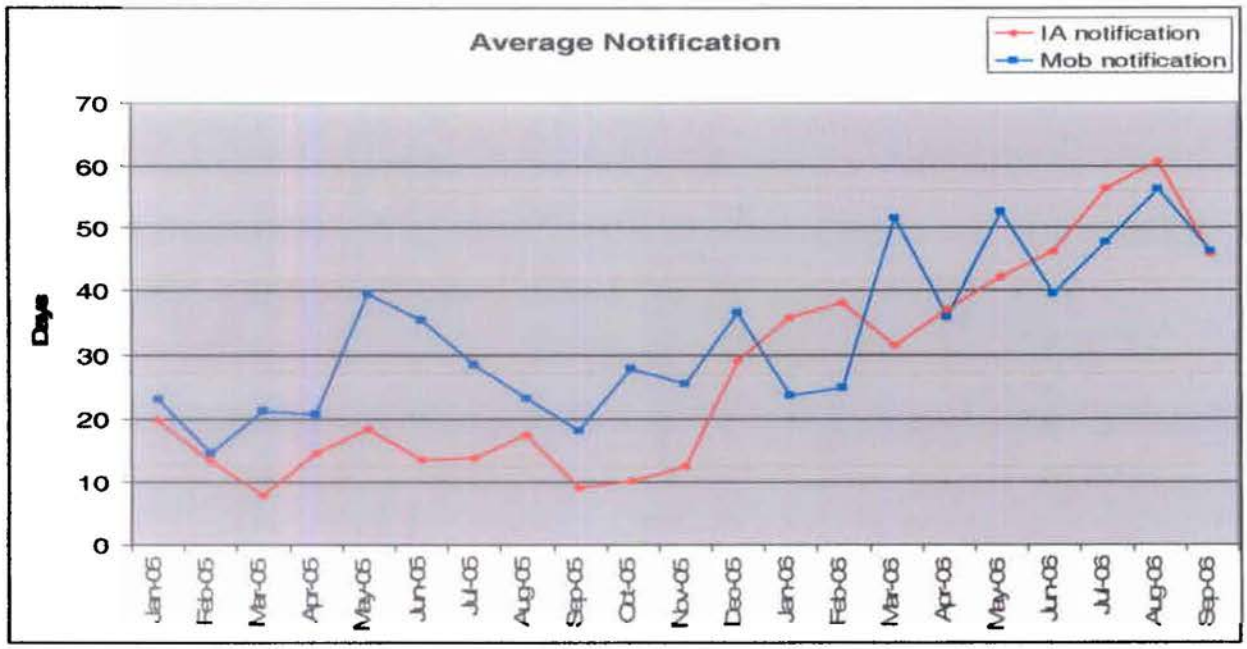
- Short-notice Latest Arrival Date (LAD) requirements received from Combatant Commanders preclude our ability to write orders with greater than 30 days notification.

- Order cancellations due to lack of member qualification (medical, dental, administrative, etc.) that require short-notice back-fills in order to meet combatant commander requirements.

In most cases, a volunteer who is fully aware of the short-notice notification is sought to fill the short-notice Individual Augmentation requirement.

C. Navy Historical Averages of Notification Times

The following table provides a graphical representation of the average notification for Reserve Component Mobilizations and Active Duty Individual Augmentations from 01 January 2005 through September 2006.



NOTE: Navy continues to improve the notification process timeline and increase the notification period for service members.

SEC. 548. REPORT ON EXTENT OF PROVISION OF TIMELY NOTICE OF LONG-TERM DEPLOYMENTS.

Not later than March 1, 2007, the Secretary of Defense shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the number of members of the Armed Forces (shown by service and within each service by reserve component and active component) who, during the period beginning on January 1, 2005, and ending on the date of the enactment of this Act, have not received at least 30 days notice (in the form of an official order) before a deployment that will last 180 days or more. With respect to members of the reserve components, the report shall describe the degree of compliance (or noncompliance) with Department of Defense policy concerning the amount of notice to be provided before long-term mobilizations or deployments.

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

May 23, 2007

MEMORANDUM FOR DEPUTY UNDER SECRETARY OF DEFENSE
(READINESS)

SUBJECT: Report to Congress on Extent of Provision of Timely Notice of Long-Term Deployments

Attachment (1) provides Navy input to support development of a draft SECDEF Report to Congress required by attachment (2), Section 548 of the John Warner National Defense Authorization Act for Fiscal Year 2007 (H.R. 5122), on Extent of Provision of Timely Notice of Long-Term Deployments.

I would like to ensure that, once developed, the draft report will be routed for formal coordination to the Military Departments to ensure that the Secretary of the Navy and Chief of Naval Operations are afforded an opportunity to review and comment on the draft report prior to signature by the Secretary of Defense.

J. C. HARVEY, JR.
Vice Admiral, U. S. Navy
Deputy Chief of Naval Operations
(Manpower, Personnel, Training
and Education) (N1)

Attachments:
As stated

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 31 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 House Armed Services Committee Report 110-146, the enclosed report provides requested information for the Littoral Combat Ship (LCS) program.

Specifically, the report addresses the analysis of the root causes of the LCS cost overruns; the methods and procedures put in place throughout the various Program Executive Offices ensuring these mistakes are not repeated in other programs; the structure of the Navy's current contractual agreements with both LCS prime contractors along with justification for differences between the two, if any; an explanation of the Navy's plan for testing of the two different ship variants; and an analysis of alternatives for future procurement and deployment of the LCS.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 31 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear. Mr. Chairman:

As directed by the Fiscal Year 2008 House Armed Services Committee Report 110-146, the enclosed report provides requested information for the Littoral Combat Ship (LCS) program.

Specifically, the report addresses the analysis of the root causes of the LCS cost overruns; the methods and procedures put in place throughout the various Program Executive Offices ensuring these mistakes are not repeated in other programs; the structure of the Navy's current contractual agreements with both LCS prime contractors along with justification for differences between the two, if any; an explanation of the Navy's plan for testing of the two different ship variants; and an analysis of alternatives for future procurement and deployment of the LCS.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 31 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 House Armed Services Committee Report 110-146, the enclosed report provides requested information for the Littoral Combat Ship (LCS) program.

Specifically, the report addresses the analysis of the root causes of the LCS cost overruns; the methods and procedures put in place throughout the various Program Executive Offices ensuring these mistake are not repeated in other programs; the structure of the Navy's current contractual agreements with both LCS prime contractors along with justification for differences between the two, if any; an explanation of the Navy's plan for testing of the two different ship variants; and an analysis of alternatives for future procurement and deployment of the LCS.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 31 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 House Armed Services Committee Report 110-146, the enclosed report provides requested information for the Littoral Combat Ship (LCS) program.

Specifically, the report addresses the analysis of the root causes of the LCS cost overruns; the methods and procedures put in place throughout the various Program Executive Offices ensuring these mistakes are not repeated in other programs; the structure of the Navy's current contractual agreements with both LCS prime contractors along with justification for differences between the two, if any; an explanation of the Navy's plan for testing of the two different ship variants; and an analysis of alternatives for future procurement and deployment of the LCS.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

REPORT TO CONGRESS

Littoral Combat Ship

PREPARED BY

DEPUTY ASSISTANT SECRETARY OF THE NAVY, SHIPS

WASHINGTON, DC 20350

AUGUST 2007

1. REQUIREMENT

The FY 2008 House Armed Services Committee Report (110-146) directed the Secretary of the Navy to submit to the congressional defense committees by August 1, 2007, a report on the Littoral Combat Ship (LCS) program. The report is to include "the analysis of the root causes of the LCS cost overruns; the methods and procedures put in place throughout the various Program Executive Offices ensuring these mistakes are not repeated in other programs; the structure of the Navy's current contractual agreements with both LCS prime contractors along with justification for differences between the two, if any; an explanation of the Navy's plan for testing of the two different ship variants; and an analysis of alternatives for future procurement and deployment of the LCS."

2. BACKGROUND

The LCS program is of critical importance to the Navy. With its great speed and interchangeable modules, the ship will provide unprecedented warfighting flexibility. LCS is the cornerstone of the future Navy, and provides critical capability to the Fleet. Its fast, agile, focused-mission platform is designed for operation in near-shore environments yet is capable of open-ocean operation. It is designed to defeat asymmetric "anti-access" threats such as mines, quiet diesel submarines, and fast surface craft. The modular design integrated into a completely functional weapon system promises to deliver a warship class that will be highly effective, and allows LCS to be tailored specifically for the mission at hand -- flexible solutions to deliver needed capabilities to evolving threats.

LCS is needed now to fill critical, urgent warfighting requirements gaps that exist today. LCS provides capabilities in the areas of:

- Sea mine hunting, identification, and neutralization
- Detect, classify, track, and successfully engage small boats
- Detection and neutralization of quiet diesel submarines in shallow water environments

LCS is required now to establish and maintain U.S. Navy dominance in the littorals and strategic choke points around the world.

LCS is modular and easily upgradeable to ensure continued U.S. and Coalition forces access through strategic choke points and into vital littoral regions to adapt against uncertainties of future threats. As part of the Navy's program review, the warfighting and operational requirements have been revalidated.

The Navy awarded contracts for construction of the first four LCS seaframes (Flight 0). Lockheed Martin (LM) and General Dynamics (GD) have been awarded two ships each. LCS 1 (FREEDOM), the first LM ship was launched in September 2006. Fabrication on

LCS 2 (INDEPENDENCE), the first GD ship, began in November 2006. LCS 3 and 4 options were exercised in June and December 2006, respectively.

The Navy identified significant cost growth with the lead LM ship and issued a 90-day stop work order in January 2007 for the second LM ship, LCS 3, to provide time to assess factors contributing to the cost growth and to develop an executable program plan for the way ahead. The Navy evaluated the overall performance of the program, closely working with the contractor to address cost overruns and root causes.

Since the beginning of the year, the Navy has diligently worked with the two industry teams to identify and evaluate program cost, schedule, and technical risk. After an extensive program assessment, the Navy has developed an executable program plan that adjusts the acquisition profile, ship cost estimates, budgets, and schedules. It also provides resources for effective management of cost, production, and technical risk to deliver ships to the Fleet to support the urgent warfighting requirement.

This plan for LCS includes four core elements:

- Increased Navy oversight
- Selective contract restructuring
  - Unsuccessful for LCS 3 with LM resulting in partial termination
  - An option for GD ships if cost performance warrants
- Reprogramming of resources within the LCS program
- Execution to an achievable schedule

Projected cost growth on LCS 1 and LCS 2 varies between 50-75% depending on the basis of comparison, and the Navy has seen increases on LCS 4. The Navy will forgo LCS procurements currently budgeted in FY 2007 (two ships) and use the FY 2007 Shipbuilding and Conversion, Navy (SCN) funding to cover LCS 1, 2, and 4 cost growth. The Navy appreciates Congress's support of the recent reprogramming request for $279M of the FY 2007 SCN funds, and looks forward to working with the Congress on the remaining funding required to execute the Navy's revised program plan. The FY 2007 Omnibus reprogramming request recently submitted by the Department includes an additional $206 million of the FY 2007 SCN funds. The remainder of FY 2007 SCN, approximately $34 million, is still required due to cost growth seen on LCS 4.

The restructured LCS plan also includes procurement of additional Flight 0 seaframes in FY 2008 and FY 2009 to address critical warfighting gaps. The FY 2008 President's Budget request is sufficient to procure two LCS in FY 2008.

The Navy intends to initiate fixed price incentive contracts starting in FY 2008 to more equitably balance cost risk between the Navy and industry. In addition, the restructured plan provides funding to both industry teams to update their respective designs and implement changes that will improve producibility and reduce cost.

The Navy intends to propose to OSD that a full and open competition for Flight 1 ships in FY 2010 and beyond be held. The two existing seaframe designs will undergo operational performance testing in FY 2009, and the results will be considered as part of the evaluation for a single seaframe design selection for the FY 2010 and follow Flight 1 ships of the LCS class. Flight 1 ships will be based on the selected design and will incorporate lessons learned from test and trials. However, the Navy may elect to continue production of both seaframes should each present unique a operational advantage. The Navy also intends to implement a Government-furnished open architecture common combat system/command, control, communication, computers and intelligence (C4I) suite in the design to optimize lifecycle cost and capability across the family of surface combatants.

3. ANALYSIS OF ROOT CAUSES

The Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RD&A)) established a Program Management Assist Group (PMAG) to conduct a review of cost growth associated with LCS 1, and to review projected costs for LCS 2, LCS 3 and LCS 4. The PMAG assessment identified the following root causes of cost growth:

- Aggressive cost goal and schedule
- Pressure to build to a schedule was strongly emphasized and generated cost growth
- The ambitious schedule relied upon concurrent design and construction that was not achieved.
- For LCS 1, the timing of LM's bid to the finalization of Naval Vessel Rules resulted in underestimated efforts for design and construction by the contractor.
- The competitive environment created disincentive for the contractor to surface execution challenges to the Navy.

The PMAG made several recommendations based on the assessment of LCS root causes:

- Emphasize rigorous risk management for high risk programs, including incorporation of risk mitigation strategies directly into shipbuilding contracts.
- ASN(RD&A) issue guidance highlighting critical program management functions and emphasizing chain of command notification of unexpected results, including details surrounding changes in contract baselines.
- Conduct formal independent cost estimates before exercising future options or contracts in LCS. Incorporate appropriate risk margins in budgets for future LCS procurements.
- Implement organizational changes across supporting offices: improving timing and staffing levels of on-site government oversight (SUPSHIP) to better match construction schedules; providing adequate resources and manning to the acquisition program office and supporting NAVSEA offices; and improving experience and training levels of the program managers and their staffs.
- Implement contractual and acquisition policy changes to improve visibility and performance expectations.

Responses to these recommendations will be addressed in the following discussion of the revised LCS program plan as well as an overview of changes being made to prevent reoccurrence in other Navy acquisition programs.

4. METHODS AND PROCEDURES ENACTED BY NAVY

As an initial response to the findings of the LCS program assessment, ASN(RD&A) also directed a series of specific actions to reduce risk and improve management of Navy acquisition programs:

- A review of all Navy ACAT 1 programs to assess the amount of design/build concurrency to identify potential additional risks and ensure proper mitigation. This review is in progress.
- A review of program office staffing for all ship new construction programs. This review is in progress.
- A complete review of Defense Acquisition Workforce Improvement Act (DAWIA) qualifications required and as currently staffed for Navy ACAT I and II programs. This review is complete and did not identify problems with DAWIA qualifications.
- An ASN(RD&A) review of each Program Executive Office's (PEO) span of control to determine if changes in PEO organizational structures or portfolio alignment are required.
    - In one specific action, the span of control for PEO Ships has been reduced by establishing a Team Ships such that one flag officer is responsible for Fleet support, and one flag officer is responsible for ship acquisition.
    - Additionally, the System Commands are transitioning to a Competency Aligned Organization (CAO) to create an organization that responds to the workload "demand signal" in an agile, disciplined and cost effective manner.
- NAVSEA review of Supervisor of Shipbuilding (SUPSHIP) staffing for all ship new construction programs. This review is complete and identified the need for additional billets in the areas of Earned Value Management System (EVMS), technical authority (engineering), and on-site project management. ASN(RD&A) has directed NAVSEA to work with the PEOs to develop an implementation plan for the added personnel.
- ASN(RD&A) has directed a similar Navy review of Defense Contract Management Agency (DCMA) support for all Navy acquisition.
- An increase of the frequency and scope of ASN(RD&A) reviews of acquisition programs, now conducted within "portfolios" (Air, Ships, C5I, Expeditionary Warfare) to improve communication and management transparency.
- Conduct of a series of "Dialogues on Acquisition Excellence" with the leadership of the System Commands, PEOs, and program management offices.

While these actions represent an immediate effort to identify and mitigate risk in current Navy acquisition programs, they have also informed a larger effort that ASN(RD&A) is now leading - an Acquisition Reengineering effort within the Department of the Navy to:

- Better control cost and requirements growth
- More accurately estimate the cost risk in Navy programs
- Match contracting models and incentives to the cost and risk of the program

As part of this effort, ASN(RD&A) is focusing resources where they are most needed, including ensuring that our higher risk and most critical programs are resourced properly.

The key tenets of Navy Acquisition Reengineering include:

- Aligning the organization
  - Ensuring business practices are based on accountability, transparency, and trust
  - Focusing business practices on delivering the required capabilities on time and within budget
  - Focusing organizational structure on PEOs and program managers who are responsible for delivering to the warfighter
- Aligning the resources
  - Focusing resources where they are most needed
  - Ensuring higher risk and most critical programs are properly resourced
  - Improving the timing and staffing levels of on-site government oversight (SUPSHIP/DCMA) to better match production schedules
  - Providing appropriate resources and manning the acquisition program offices and supporting System Command (SYSCOM) offices
  - Improving experience and training levels of the program managers and their staffs
- Cost Risk Management
  - Understanding program cost risk
  - Exploring techniques for isolating/mitigating risk
  - Reflecting cost risk in contract terms and conditions
  - Moving to fixed price incentive contracts as soon as possible
  - Establishing shared understandings of risk across the Navy Enterprise
  - Stabilizing requirements

The Navy's greatest challenge is applying the right resources where they need to be across the Acquisition Enterprise. Like most areas of the Department, Navy Acquisition is faced with the realities of a fiscally constrained environment. It is critical that the Navy execute its programs well, and in a productive partnership with the Navy's counterparts in industry. The Acquisition Reengineering effort will be a key component of the Navy's ability to affordably provide these critical capabilities.

5. STRUCTURE OF CONTRACT ARRANGEMENTS

Both LCS prime contracts are currently Cost-Plus-Award-Fee (CPAF) contracts. The Navy sought to restructure the LM contract for LCS 1 and 3 to Fixed Price Incentive (FPI) terms to more equitably balance cost and risk, but could not come to terms and conditions that were acceptable to both parties. On April 12, 2007, the Navy partially terminated construction of LCS 3 for convenience under the termination clause of the contract.

The Navy will continue to monitor GD performance on LCS 2 and LCS 4. The Navy has established a set of criteria, including cost growth, to monitor GD LCS execution. The Navy will seek to restructure the GD contract to FPI should the performance criteria be breached.

As part of the program restructuring, the Navy intends to initiate FPI contracts starting in FY 2008 to more equitably balance cost risk between the Navy and industry. In addition, the restructured plan provides funding to both industry teams to update their respective designs and implement changes that will improve producibility and reduce cost.

6. NAVY TEST PLAN FOR SHIP VARIANTS

Initial testing of each LCS Flight 0 seaframe and the eventual Flight 1 seaframe occurs at Builder's Trials and Acceptance Trials prior to delivery. At the Builder's Trials, the Navy's Supervisor of Shipbuilding provides oversight, and the Navy's Board of Inspection and Survey conducts the Acceptance Trials. After the delivery, each Flight 0 and Flight 1 seaframe will proceed through a Post Delivery Test and Trials period planned by the LCS and Mission Package program offices. This period includes a Combat System Ship Qualification Trial (CSSQT) to ensure that the ship is safe and effective to operate, and a Final Contract Trials (FCT) to determine the ship meets all of the requirements of the contract.

In addition to these tests, the Navy will conduct formal Developmental, Operational, and Engineering Test (DT/OT/ET) on the first ship of each Flight 0 design. This testing will be accomplished in stages as the ships complete construction and the focused Mission Packages mature. The first stage of the testing will consist of the conduct of a DT/Operational Assessment (OA) of both LCS Flight 0 seaframe designs using a mission-representative Mine Counter Measures (MCM) Mission Package. At this time, an engineering test will also evaluate selected elements from the anti-submarine (ASW) and surface warfare (SUW) packages. Further DT/OT/ET will also be conducted to include testing of the complete ASW and SUW Mission Packages, and of the eventual first Flight 1 LCS.

The LCS 1 and 2 testing, along with other criteria, will be used to select a single seaframe design in FY 2009 for competitive procurement of Flight 1 LCS in FY 2010. Evaluation

criteria are being developed jointly with the Fleet to support a FY 2009 single seaframe selection.

7. ANALYSIS OF ALTERNATIVES FOR PROCUREMENT & DEPLOYMENT

The strategy for LCS procurement beyond FY 2009 is based on a seaframe selection decision in FY 2009. A comparison of the Flight 0 seaframes equipped with identical focused Mission Packages will be one of the criteria for the potential Navy seaframe selection decision for the Flight 1 ships. The Navy decision will consider the available DT and OT results as well as other relevant technical and programmatic considerations. A full and open competition will be conducted in FY 2010 for construction of the selected design for FY 2010 and beyond. However, the Navy may elect to continue production of both seaframes should each present a unique operational advantage.

The Navy carefully considered the two primary alternatives for LCS seaframe acquisition in FY 2010 and beyond: (1) selecting a single seaframe design and (2) continuing to procure two seaframe designs.

Selecting a single Flight 1 seaframe achieves commonality in hull, mechanical, and electrical (HM&E) and C4I systems in the LCS class. This alternative also allows the Navy to move more easily to a common combat system and C4I suite for the class. One seaframe design with a common combat system and C4I suite is projected to reduce life cycle cost with reduced logistics and training costs. To maintain competitive pricing pressure for Flight 1, the Navy intends to conduct a full and open competition for procurement in FY 2010 and beyond. This may result in some additional non-recurring start up costs in the near-term, but expanding potential sources increases competitive pricing pressure and enables higher production rates in the outyears needed to procure a 55-ship LCS class and achieve the CNO's force structure objective of 313 ships.

Continued procurement of two seaframe designs into FY 2010 and beyond is also an alternative since both ships are currently assessed as being capable of meeting all the Key Performance Parameters and critical requirements. Existing Navy and industry nonrecurring investments would be leveraged to the maximum extent under continuation of Flight 0 ship production with the current primes. Additionally, the common combat system and C4I suite would be included in the alternative.

The Navy's decision to move to Flight 1 procurement in FY 2010 allows these ships to more easily incorporate lessons learned from the operational evaluation. The implementation of a common combat system and C4I suite as part of Flight 1 would reduce lifecycle cost of the common warfare system, but does not achieve the savings in seaframe HM&E, crew training, and logistics costs anticipated from selecting a single seaframe design.

The design to implement Flight 1 starting in FY 2010 is driven by the timeline required to complete the operational evaluation, incorporate lessons learned and any necessary

changes to meet the LCS Capabilities Development Document (CDD) for Flight 1, and develop a mature technical data package needed to conduct Flight 1 full and open competition for either seaframe.

In the interim, the Navy intends to continue procurement of Flight 0 seaframes in FY 2008 and FY 2009. These ships are urgently needed and will serve as gap fillers to meet current critical warfighting gaps in the littorals and strategic choke points in the littorals.

The current LCS Flight 0 ships acquisition strategy allowed the industry teams to design and acquire the combat system and C4I suite. As a result, each team developed a combat system/C4I suite with unique components not included on the other seaframe design, or other Navy ships. The lack of commonality between the two current designs and Navy components negatively impacts the expected combat systems ownership costs to support these ship variants: i.e., materiel logistics, training programs, maintenance, system upgrades and technology refreshment. Additionally, some system components are foreign and/or proprietary designs that may not convey with Government Purpose Rights (GPR), limiting sources for obtaining component support.

To minimize impacts to the combat systems ownership costs to acquire, operate, and maintain the LCS 1 class, the Navy is updating its acquisition strategy for acquiring the LCS combat system beginning with FY 2010 Flight 1 procurements. The Navy intends to transition from Contractor Furnished Equipment (CFE) designs to a single common combat system that will be provided as Government Furnished Equipment (GFE)/ Government Furnished Information (GFI). This strategy will incorporate, wherever possible, existing Navy program-of-record combat system components. Where no Navy program-of-record or Fleet-common component exists that meets LCS requirements, a full and open competition will be conducted for these components. This strategy allows the Navy to establish commonality of LCS combat system components across all Flight 1 ships in the class, preserve GPR for the Navy, and assure that required capabilities are met with a set of combat system components that optimizes performance, acquisition, and ownership costs.

The current Flight 0 combat system solutions consist of eight major elements: an open architecture combat management system, volume search radar, identification friend or foe system, electronic surveillance system, medium caliber gun, gun fire control system, electro-optical/infrared sighting system, and a close-in/self-defense weapon system. The common combat system that the Navy will provide will be comprised of these same elements. The Navy is not initiating a new combat system program or adding elements to the current solution configuration. Rather, for Flight 1, the Navy is replacing the two unique sets of Flight 0 combat system components with a single set of Navy-defined combat system components.

A class design services contract with each existing industry team will be utilized as the vehicle to accomplish the Flight 1 design efforts. Each of the teams will update their individual drawing packages to include lessons learned from Flight 0 design and construction, any approved changes or Engineering Change Proposals, as well as any

changes driven by Milestone B documentation such as the CDD. In addition, the products from the common combat system design efforts, in the form of an Interface Control Document (ICD) will be incorporated into the class design services contracts. Similarly, any C4I decisions will be integrated as an ICD input. The product of the class design services contracts will be a Navy design package from which the selected Flight 1 seaframe may be competitively bid and awarded. It is critical to this plan that Congress approve the Navy's request in its FY 2007 Omnibus reprogramming action to use a portion of the reprogrammed LCS funds for the common combat system and C4I suite efforts, the class design services contracts, and other efforts which are essential for the ability to procure the Flight 1 ships in FY 2010.

The test plan for Flight 1 ships will include the conduct of a Technical Evaluation (TECHEVAL) and an Operational Evaluation (OPEVAL) in FY 2014 to demonstrate the operational effectiveness and suitability of the production Flight 1 LCS. The Flight 1 LCS will also undergo a Total Ship Survivability Trial (TSST) to assess any changes from the Flight 0 design in susceptibility or vulnerability with the common combat system onboard.

The LCS Flight 0 ships meet the urgent operational needs of the surface Navy providing Fleet Commanders with a flexible combat capability in the challenging littoral. Flight 0 ships are designed to be completely interoperable with Carrier Strike Groups, Expeditionary Strike Groups, Surface Action Groups and one another. Though the Navy will transition to a Flight 1 design to realize the added advantage of system commonality and continued open architecture, the Flight 0 and Flight 1 ships will be able to perform the same missions with the same degree of interoperability. For ease of supportability and maintenance, the Flight 0 ships will be homeported in the same location, but will be available to the Fleet Commander for deployment world wide. The high degree of Mission Package system modularity allows for Flight 0 enhancement of combat and operational capability through equipment and software modernization.

9. SUMMARY

The Navy has worked diligently with both industry teams to identify and evaluate program cost, schedule and technical risk, and the LCS program office is being resourced to satisfy the required oversight for effective management of the LCS program. After an extensive program assessment, the Navy has developed an executable program plan that adjusts the acquisition profile, ship cost estimates, budgets and schedules, while providing resources for effective management of cost, production and technical risk, to deliver ships to the Fleet to support the urgent warfighting requirement.

THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 31 2007

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United State Senate
Washington, DC 20510

Dear Mr. Chairman:

The enclosed report provides information regarding Department of the Navy efforts in considering new information for an Outlying Landing Field to serve Naval Air Station Oceana and Marine Corps Air Station Cherry Point, as required by House Report 110-186.

If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 31 2007

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The enclosed report provides information regarding Department of the Navy efforts in considering new information for an Outlying Landing Field to serve Naval Air Station Oceana and Marine Corps Air Station Cherry Point, as required by House Report 110-186.

If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Roger Wicker
Ranking Minority Member

Report to Congress
for the
House Committee on Appropriations
Subcommittee on Military Construction, Veterans Affairs, and Related Agencies
on
Navy Progress in Considering Alternative Locations for an Outlying Landing Field (OLF)

PREPARED BY:
Assistant Secretary of the Navy
(Installations and Environment)
1000 Navy Pentagon
Washington, D.C. 20350-1000

July 2007

Table of Contents

Section		Page
I.	Report Requirements	1
II.	Report	
	a. Background	2
	b. Cooperation with the State of North Carolina	2
	c. Cooperation with the State of Virginia	3
	d. Conclusion	3

I. REPORT REQUIREMENTS

House Report 110-186 on the 2008 Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill requires the Navy to provide a report on progress in considering alternative sites for an Outlying Landing Field (OLF) to serve Naval Air Station Oceana and Marine Corps Air Station Cherry Point. The report is due no later than July 31, 2007.

II. REPORT

a. BACKGROUND

The Draft Supplemental Environmental Impact Statement (DSEIS) for the Introduction of the F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States was released to the public on February 23, 2007. Public hearings were held in Hyde, Bertie, Perquimans, Craven, Beaufort, and Washington counties, and in the City of Charlotte between March 19, 2007 and April 17, 2007. A public comment period extended from February 23, 2007 through May 9, 2007.

Comments received through public hearings and the public comment process revealed widespread opposition in North Carolina at the Federal, State, and local level to the preferred alternative OLF site in Washington County. The public also expressed in their comments a desire for the Navy to work with the leadership of North Carolina on identifying alternative sites for the OLF.

While the Navy believes that its examination of the five alternative sites analyzed in the DSEIS has been proper and thorough, the Navy recognizes the concerns that have been expressed about the Navy's preferred alternative, as well as the other four alternative sites analyzed in the DSEIS. The Navy takes these concerns very seriously, and is carefully considering them before making further decisions regarding the proposed OLF. To that end, the Navy is in discussion with the States of North Carolina and Virginia that may result in identification of new information on areas and sites examined during the site screening process employed by Navy. If the Navy receives new information about sites in Virginia or North Carolina that potentially meet Navy OLF siting requirements, the Navy will consider and evaluate that new information and determine whether adjustments in the current SEIS process are warranted to enable formal analysis of such sites under the National Environmental Policy Act.

b. COOPERATION WITH THE STATE OF NORTH CAROLINA

Navy representatives have met with officials from the state of North Carolina to discuss new information about the five OLF sites evaluated in the DSEIS as well as other areas that fall within the siting criteria employed by Navy. State officials have informally provided new information about several areas in Northeastern North Carolina that they believe might merit further evaluation. The Navy has completed an interim analysis of this new information and provided initial feedback to State officials regarding this new information. The Navy remains in continuous discussions with the State of North Carolina on this matter as the State continues to gather information input from other sources. By letter dated July 25, 2007, Governor Easley committed that State staff will help assess the viability of any sites identified through the new information provided by North Carolina.

c. COOPERATION WITH THE STATE OF VIRGINIA

By letter dated May 7, 2007, Virginia Governor Kaine asked the Navy to consider new information that the Commonwealth of Virginia may find concerning the best site for an OLF. The Navy subsequently met with Virginia officials to discuss the siting criteria employed by the Navy and the process for Virginia to provide new information about OLF sites that might merit further evaluation. The process established for receiving new information from Commonwealth officials was consistent with the procedures and timeline used in working with the State of North Carolina.

On July 10, 2007, representatives from the Virginia Office of Commonwealth Preparedness made available to the Navy and the public new information on ten potential sites in Southeastern Virginia that Commonwealth officials believe might be suitable candidates for further consideration. Senator Warner's office also provided new information about Fort Pickett, an alternative site that was initially considered in the EIS but was later eliminated from detailed analysis. The Navy expects to complete an interim analysis of that new information in August 2007, and provide initial feedback to the Virginia Office of Commonwealth Preparedness.

d. CONCLUSION

In response to comments received on the DSEIS and in consideration of concerns expressed about the Navy's preferred alternative location for an additional OLF to support Navy F/A-18 E/F squadrons home-based at Naval Air Station Oceana and Marine Corps Air Station Cherry Point, the Navy is working with the states of North Carolina and Virginia to determine whether there is new information about alternative sites for an OLF that would merit further consideration.

The Navy has received and assessed new information about sites in North Carolina and Virginia and remains in discussion with State leadership.

In September 2007, the Navy expects to complete sufficient analysis of the new information provided by North Carolina and Virginia to determine whether analysis of additional alternative OLF sites is warranted under the National Environmental Policy Act.

The Navy remains committed to continue to work with local, state and federal officials to the successful completion of this process.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In response to the House Armed Services Committee Report (110-146) regarding the "Premature Retirement of Navy Vessels," the attached report addresses the committee's concerns that Navy ships are being retired prior to reaching their expected service life. This report provides details of vessels being retired early between fiscal year 2008 and fiscal year 2012 to include a strategy for future design and construction to preclude a ship retiring prior to reaching its expected service life.

The Navy will retire 25 ships between fiscal year 2008 and fiscal year 2012, and 6 of the 25 ships will retire prior to reaching planned expected service life. Each ship's unique operational history and readiness condition are considered when making retirement decisions to include expected service life, material condition, manning requirements, annual operational and life-cycle costs, and total Navy force structure requirements. The 6 ships designated for retirement prior to their expected service life are not required to support the 313-ship force structure. As the Navy transitions to a 313-ship force structure, we continue to balance the numbers and types of ships for evolving current and future Navy mission requirements.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable Daniel Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In response to the House Armed Services Committee Report (110-146) regarding the "Premature Retirement of Navy Vessels," the attached report addresses the committee's concerns that Navy ships are being retired prior to reaching their expected service life. This report provides details of vessels being retired early between fiscal year 2008 and fiscal year 2012 to include a strategy for future design and construction to preclude a ship retiring prior to reaching its expected service life.

The Navy will retire 25 ships between fiscal year 2008 and fiscal year 2012, and 6 of the 25 ships will retire prior to reaching planned expected service life. Each ship's unique operational history and readiness condition are considered when making retirement decisions to include expected service life, material condition, manning requirements, annual operational and life-cycle costs, and total Navy force structure requirements. The 6 ships designated for retirement prior to their expected service life are not required to support the 313-ship force structure. As the Navy transitions to a 313-ship force structure, we continue to balance the numbers and types of ships for evolving current and future Navy mission requirements.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the House Armed Services Committee Report (110-146) regarding the "Premature Retirement of Navy Vessels," the attached report addresses the committee's concerns that Navy ships are being retired prior to reaching their expected service life. This report provides details of vessels being retired early between fiscal year 2008 and fiscal year 2012 to include a strategy for future design and construction to preclude a ship retiring prior to reaching its expected service life.

The Navy will retire 25 ships between fiscal year 2008 and fiscal year 2012, and 6 of the 25 ships will retire prior to reaching planned expected service life. Each ship's unique operational history and readiness condition are considered when making retirement decisions to include expected service life, material condition, manning requirements, annual operational and life-cycle costs, and total Navy force structure requirements. The 6 ships designated for retirement prior to their expected service life are not required to support the 313-ship force structure. As the Navy transitions to a 313-ship force structure, we continue to balance the numbers and types of ships for evolving current and future Navy mission requirements.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the House Armed Services Committee Report (110-146) regarding the "Premature Retirement of Navy Vessels," the attached report addresses the committee's concerns that Navy ships are being retired prior to reaching their expected service life. This report provides details of vessels being retired early between fiscal year 2008 and fiscal year 2012 to include a strategy for future design and construction to preclude a ship retiring prior to reaching its expected service life.

The Navy will retire 25 ships between fiscal year 2008 and fiscal year 2012, and 6 of the 25 ships will retire prior to reaching planned expected service life. Each ship's unique operational history and readiness condition are considered when making retirement decisions to include expected service life, material condition, manning requirements, annual operational and life-cycle costs, and total Navy force structure requirements. The 6 ships designated for retirement prior to their expected service life are not required to support the 313-ship force structure. As the Navy transitions to a 313-ship force structure, we continue to balance the numbers and types of ships for evolving current and future Navy mission requirements.

A similar letter has been sent to Chairmen Levin, Inouye, and Skelton. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

Report to Congress on Retirement of Navy Ships Prior to Expected Service Life (ESL) FY 2008 - FY 2012

Prepared By:

Director, Warfare Integration (OPNAV N8F)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

September 2007

Reporting Requirement

This report is in response to House Armed Service Committee Report (110-146) regarding "Premature Retirement of Navy Vessels."

"The committee remains concerned that vessels of the U.S. Navy are being retired prior to the end of useful service life. The committee understands that over the past two decades a significant percentage of the capital ships of the Navy have been retired based on cost avoidance decisions for modernization of surface combatants or refueling of submarines. The committee notes that those decisions have resulted in a current fleet of less than 280 capital ships. The committee strongly believes that future Navy ship classes should be designed and constructed to allow for cost effective upgrades to the ships sensors, communications, and weapons systems as new technologies become available. The committee directs the Secretary of the Navy to submit a report to the congressional defense committees by October 1, 2007, detailing the vessels that the Navy expects to retire between October 1, 2007, and September 30, 2012, which will not have reached the end of useful service life. This report shall specify why it is in the best interest of the nation to retire any such vessel prior to the end of its useful service life. For the purposes of this report, ``useful service life'' shall be defined as the projected hull life of the ship class. Additionally, this report shall include the Navy's strategy for future design and construction to ensure that capital ships can be upgraded economically, and are not retired prematurely."

II. Background

Inventory management of the Navy's fleet is a long term process. Given the significant investment required, naval ships are procured at relatively low rates and their useful service life is comparatively long: 25 years for smaller ships and up to 40-50 years for ballistic missile submarines and nuclear-powered aircraft carriers. Because of their relatively complex configuration and size, their design time can range from two to seven or more years; similarly, construction time also spans several years. As the Navy transitions to a force that is effective in a 21st Century geo-political environment, 30-40 years will ultimately be required to make a complete change in the Navy's force structure as older ships retire at the end of their useful service and are replaced with newer, more suitable designs.

The total inventory of battle force ships will vary from year to year as a result of the complex interaction between retirements, recapitalization, capability, affordability, design and construction time, and industrial base capacity. The Navy continuously evaluates the threat and evolving security environment to determine the necessary forces required. When determining which vessels will be decommissioned, various factors are taken into consideration, e.g., expected service life, material condition; manning requirements; annual operational and life-cycle costs; and, total Navy force structure requirements.

The Navy's plan to build a force of 313 ships represents a balanced structure of different ship types required to support Navy missions. The numbers of ship types required to support current and future mission requirements has changed from what it was in the past. Consequently, the Navy must respond to an excess of ships of a particular type that are not needed to support operations.

FOR OFFICIAL USE ONLY

The Navy uses a ship's expected service life (ESL) for planning the number of years that a ship is expected to be in service. For this report, expected service life and "projected hull life" are synonymous.

III. Navy Ship Retirement Plans Fiscal Year 2008-Fiscal Year 2012

A. Retirements

During the period fiscal year 2008 to 2012 Navy plans to retire the 25 battle force ships listed in the table below:

FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
SSN 710	CV 63	FFG 8	SSN 691	FFG 28
T-AFS 3	LHA 1	LPD 13	T-AE 35	FFG 29
T-AFS 9	LPD 10	LPD 7	T-AE 32	FFG 32
	T-AFS 10	SSN 688	T-AE 33	LPD 8
	T-AFS 5	SSN 690		LPD 15
	T-AFS 7	T-AE 26		
		T-AE 34		

Naval Reserve Force, Active (NRFA) ships are not counted as part of the Navy's list of Battle Force Ships to which the Committee refers to. MHC 56, MHC 57, MHC 58, and MHC 62 are among NRFA ships and are scheduled to be retired in fiscal year 2008.

B. Length of Service

The following table outlines the length of service for each ship and compares it to the expected service life that was planned for each class.

Ship Hull Number	Retirement FY	ESL	Age at Retirement	Delta
SSN 710	2008	33	23	-10
T-AFS 3	2008	40	41	1
T-AFS 9	2008	40	41	1
CV 63	2009	45	48	3
LHA 1	2009	35	33	-2
LPD 10	2009	35	40	5
T-AE 26	2010	40	42	2
T-AFS 5	2009	40	40	0
T-AFS 7	2009	40	38	-2
T-AFS 10	2009	40	42	2
FFG 8	2010	30	30	0
LPD 13	2010	35	40	5
LPD 7	2010	35	43	8

Ship Hull Number	Retirement FY	ESL	Age at Retirement	Delta
SSN 688	2010	33	33	0
SSN 690	2010	33	33	0
T-AE 32	2011	40	40	0
T-AE 34	2010	40	38	-2
SSN 691	2011	33	33	0
T-AE 35	2011	40	38	-2
FFG 28	2012	30	30	0
FFG 29	2012	30	30	0
FFG 32	2012	30	30	0
LPD 8	2012	35	45	10
LPD 15	2012	35	41	6
T-AE 33	2011	40	39	-1
(-) Delta means less than expected service life				

FOR OFFICIAL USE ONLY

IV. Ships Planned for Retirement Prior to their Expected Service Life

Six ships of the 25 planned for retirement between fiscal year 2008 and fiscal year 2012 will be retired prior to their expected service lives, as shown in the following table. Each class is discussed below regarding why it is in the best interest of the Nation to retire the ship prior to the end of its expected service life.

Ship Hull Number	Retirement FY	ESL (yrs)	Age at Retirement (yrs)	Delta (yrs)	313 Force Structure Requirement	Number in Inventory after this ship retires
SSN 710	2008	33	23	-10	48	52
LHA 1	2009	35	33	-2	9	10
T-AFS 7	2009	40	38	-2	0	0
T-AE 33	2011	40	39	-1	0	0
T-AE 34	2010	40	38	-2	0	3
T-AE 35	2011	40	38	-2	0	0
(-) Delta means less than Expected Service Life						

A. Submarines

In the Navy's 313-ship force structure, 48 attack submarines are required to meet the projected warfighting requirements through fiscal year 2020. Upon the fiscal year 2008 delivery of the USS NORTH CAROLINA (SSN 777), the USS AUGUSTA (SSN 710) is being inactivated and is not required to maintain Navy's force structure. Retaining this submarine would require a 24-month engineered refueling overhaul. After USS AUGUSTA's fiscal year 2008 retirement through FY 2012, there will be 52 attack submarines in inventory. The Navy maintains the required number of nuclear attack submarines until fiscal year 2020.

B. Amphibious Ships

Navy requires 9 big-deck amphibious assault ships (LHA/LHD) in its 313-ship force structure. USS TARAWA (LHA 1) is being inactivated in fiscal year 2009 after 33 years of service. Her inactivation will be concurrent with USS MAKIN ISLAND (LHD 8) joining the fleet. Consequently, Navy will have ten big-deck amphibious assault ships in inventory through fiscal year 2012 and will meet Marine Corps amphibious lift requirements. Maintaining TARAWA in active service for two additional years would exceed requirements and would cost approximately $250 million ($125 million per year) to operate the ship. A study of any engineering changes needed for extension beyond planned date would be required.

C. Combat Logistics Force Ships

The Navy has evolved its combat logistics support operational requirements to three ships types: Fast Combat Support Ship (T-AOE); Fleet Oiler (T-AO); and Dry Cargo/Ammunition Ship (T-AKE). Reducing the Combat Logistics Force support to three ship types will improve the overall effectiveness of operational fleet support. New construction T-AKE ships will replace both the aging combat cargo and ammunition ships (T-AFS and T-AE), which are no longer required as part of the 313-ship force structure.

V. Navy's Strategy to Preclude Necessity of Future Ship Retirements Prior to Expected Service Life

A. Causes

There are three primary causes that result in a ship or ship class being retired prior to reaching expected service life. First, the mission for which the ship was designed is no longer required, and the ship becomes marginally useful or has no useful role in Navy's force structure. Second, with changing mission requirements, the required numbers of a particular ship type may be reduced and result in excess inventory. Lastly, the cost of maintaining or modernizing the ship to retain its front-line combat readiness status becomes prohibitive or does not make sense from a cost-benefit perspective.

B. Strategies to Minimizing Future Retirements Prior to Expected Service Life

Multi-Mission Capability: Mission requirements can become outdated due to change in the world geo-political environment, new warfighting requirements, new technologies, new concepts of operations, or other changes that would dictate a requirement for a different platform design. The Navy designs its ships with multi-mission capability to have the flexibility to change their operational emphasis without major structural changes in the ship.

Long Range Force Architecture Analysis: The Navy is conducting detailed analysis of potential warfighting requirements farther into the future than it has in the past. The analysis assesses the potential future conflicts and types of warfare that might be required 20-50 years into the future. This approach is expected to yield design requirements for combatant ships that can be used for longer periods of time and be able to adapt to changes in the world environment.

Modular Systems: The cost of maintenance and modernizing the ship to maintain its combat edge over time is a major driver in the decision to retire a ship. Significant flexibility and ultimately the ability to extend a ship's service life may be achieved through the use of modular system installations and open architecture systems.

The use of modular ship systems installations can facilitate the removal and replacement of failed or obsolete components. It also permits modification of the ship's mission capabilities as operational requirements change throughout the life of the ship. The use of modular systems is, however, generally more expensive and results in an increased displacement to accommodate added structure to support the modular systems.

Open Architecture: The use of open architecture for electronic and software systems can reduce the cost of updating a ship's warfare and other operating systems. Electronic systems, frequently become obsolete and are no longer available on the open market. Open architecture enables replacement of the hardware or software of systems without major changes in interfacing software or hardware, much as would occur with the replacement of the mouse or display on a home computer.

VI. Summary

The Navy is transitioning to a 313-ship force structure that balances the numbers and types of ships for evolving current and future Navy mission requirements. This transition will encompass the retirement of six ships prior to reaching their expected service life between fiscal year 2008 and fiscal year 2012. Each ship's unique operational history and readiness condition are

FOR OFFICIAL USE ONLY

considered when making retirement decisions. The ships designated for retirement prior to their expected service lives are not required to support the 313-ship force structure.

The Navy is pursuing strategies to preclude retirement before its expected service life of its future ships by:

- Designing ships with a multi-mission capability with sufficient flexibility to accommodate changing mission focus during the life of the ship.
- Applying long range force architecture analysis to examine the range of future missions for its ships and identify robust and enduring ship design concepts.
- Using modular systems to facilitate systems modernization and permit modification of Navy ships' primary mission packages to accommodate changing world geo-political environments.
- Using open architecture systems to facilitate introduction of replacement hardware and software to maintain warfare systems at peak operational capability.

FOR OFFICIAL USE ONLY

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United State Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 110-146 on the National Defense Authorization Act for Fiscal Year 2008 directs the Secretary of the Navy to provide a report on the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including an assessment of alternative sites. I am providing the enclosed report in response to House Report 110-146.

The Department of the Navy will consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives which are being evaluated in the environmental impact statement that is currently underway.

A similar letter has been sent to Chairmen Levin, Murtha, and Skelton. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable Carl Levin
Chairman, Committee on Armed Services
United State Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 110-146 on the National Defense Authorization Act for Fiscal Year 2008 directs the Secretary of the Navy to provide a report on the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including an assessment of alternative sites. I am providing the enclosed report in response to House Report 110-146.

The Department of the Navy will consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives which are being evaluated in the environmental impact statement that is currently underway.

A similar letter has been sent to Chairmen Inouye, Murtha, and Skelton. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 110-146 on the National Defense Authorization Act for Fiscal Year 2008 directs the Secretary of the Navy to provide a report on the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including an assessment of alternative sites. I am providing the enclosed report in response to House Report 110-146.

The Department of the Navy will consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives which are being evaluated in the environmental impact statement that is currently underway.

A similar letter has been sent to Chairmen Inouye, Levin, and Skelton. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 20, 2007

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 110-146 on the National Defense Authorization Act for Fiscal Year 2008 directs the Secretary of the Navy to provide a report on the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including an assessment of alternative sites. I am providing the enclosed report in response to House Report 110-146.

The Department of the Navy will consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives which are being evaluated in the environmental impact statement that is currently underway.

A similar letter has been sent to Chairmen Inouye, Levin, and Murtha. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

Report to Congress
On
Carrier Basing

--

Costs Associated with the Construction of Nuclear Infrastructure and Port Improvements at Naval Station Mayport Necessary to Support a Nuclear Carrier

Prepared by
U.S. Fleet Forces Command
September 2007

I. Reporting Requirement

House Report 110-146 on the National Defense Authorization Act for Fiscal Year 2008 directs the Secretary to determine the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including a detailed assessment of alternative sites, and submit the results of this analysis to the congressional defense committees by October 1, 2007. Specifically, Conference Report 110-146 stated:

> *The committee understands that the Navy has unused capacity at Naval Station Mayport, Florida, and is conducting an environmental impact statement on the feasibility of stationing additional surface ships, including a nuclear aircraft carrier, at Naval Station Mayport. The committee believes that Naval Station Mayport is an important defense asset that should be fully utilized. The committee is concerned that Naval Station Mayport has not previously served as homeport for a nuclear carrier and does not contain the considerable specialized infrastructure necessary to sustain and maintain such a vessel. Therefore, before the Secretary of the Navy recommends the stationing of a nuclear carrier at Naval Station Mayport, the committee directs the Secretary to determine the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including a detailed assessment of alternative sites, and submit the results of this analysis to the congressional defense committees by October 1, 2007.*

II. Background

In January 2006 the Chief of Naval Operations directed Commander, U.S. Fleet Forces Command to prepare an Environmental Impact Statement (EIS) to review and assess a broad range of alternatives for homeporting additional surface ships at Naval Station Mayport.

The purpose of the proposed action is to ensure effective support of Fleet operational requirements through efficient use of waterfront and shore side facilities at Naval Station Mayport.

The EIS will evaluate the potential environmental impacts for each of the ship homeporting alternatives that are under consideration:

- Cruiser/Destroyer (CRUDES) homeporting
- Amphibious Assault Ship (LHD) homeporting
- Nuclear-Powered Aircraft Carrier (CVN) capable
- CVN homeporting
- Seven different combinations of the above
- Amphibious Ready Group (ARG) homeporting
- No Action

The EIS timeline is as follows:

- 14 Nov 06: Notice of Intent (NOI) published in the Federal Register
- 5 Dec 06: Public Scoping Meeting held in Jacksonville, FL
- 14 Nov – 29 Dec 06: Public Scoping comment period
- Mar 08: Draft EIS (DEIS) released to public
- Apr 08: Public Hearings
- Dec 08: Final EIS (FEIS) released to public
- Jan 09: Record of Decision

The Draft EIS is currently in preparation. A preferred alternative has not been identified.

III. Cost Associated with the Construction of Nuclear Infrastructure and Port Improvements at Naval Station Mayport to Support Homeporting of Nuclear Carrier

The homeporting of a nuclear-powered aircraft carrier (CVN) is one of the alternatives being evaluated in the Mayport EIS. The preliminary cost estimates provided for Military Construction (MILCON) projects are draft planning characterizations associated with the different alternatives that could be required depending on which alternative is selected. These preliminary estimates noted below are subject to substantial refinement as the process continues.

A. Dredging: A dredge project would be required in order to allow unrestricted access for a CVN under all ship loading and tidal conditions. This would include dredging within portions of the Jacksonville Harbor entrance channel, and the Naval Station Mayport entrance channel and turning basin. The cost estimate is $48M. A refined estimate for the dredging project will be developed based on final determination of the exact quantity, physical and chemical composition and ultimate disposal location of the dredged sediment. These issues are being evaluated in conjunction with the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers who are both cooperating agencies on the EIS.

B. Wharf F upgrades: Structural and utility upgrades would be required for Wharf F to serve as the maintenance berth for a CVN undergoing a Planned Incremental Availability (PIA). Improvements would be necessary to upgrade the electrical capacity, potable water, salt water (fire protection) and compressed air. Installation of plate anchor embedded high wind Type III heavy weather moorings would be required to allow a CVN to remain at Wharf F if it were under maintenance and not capable of relocating in the event of an approaching hurricane. Structural deck upgrades would be required to accommodate crane operations to move large ship components to the maintenance facilities. The cost estimate is $19M.

C. CVN nuclear propulsion plant maintenance facilities: These facilities include a Controlled Industrial Facility, Ship Maintenance Facility, and Maintenance Support Facility.

The Controlled Industrial Facility would be used for the inspection, modification, and repair of radiological controlled equipment and components associated with naval nuclear propulsion plants. It also would provide facilities and equipment for treatment, reclamation, and packaging for disposal of radiological controlled liquids and solids. It would include non-radiological controlled spaces for administrative and other support functions.

The Ship Maintenance Facility would be used to perform non-radiological depot-level maintenance on CVN propulsion plants.

The Maintenance Support Facility would house the primary administrative and technical staff offices supporting CVN propulsion plant maintenance, and central area for receiving, inspecting, shipping, and storing materials.

The combined cost estimate for all three facilities plus associated industrial equipment is in the range of $200 - $300M. This estimate is based on the Navy's previous experience with similar projects at NAS North Island, but would ultimately depend on the site-specific adaptation and design of these facilities for Naval Station Mayport. Due to the complexity of the construction and regulations pertaining to nuclear support facilities, a more refined cost estimate cannot be provided at this time until a further in-depth study of the facility requirements specific to Naval Station Mayport is completed using up-to-date construction materials pricing data.

D. Additional base infrastructure, such as parking and road improvements, may be required to support homeporting of a CVN. If required, such costs are as yet unknown.

IV. Other CVN Related Alternatives Evaluated in the Mayport EIS

Another alternative that is being evaluated in the Mayport EIS is that of making Naval Station Mayport a "CVN capable" port. For purposes of this EIS, "CVN capable" is defined as the ability to provide unrestricted access to the port, adequate berthing, and adequate services to a visiting CVN, under all ship loading and tidal conditions. For this alternative, a dredge project would be required as described in paragraph b (1) above.

V. Alternative Sites

The only alternative site for CVN homeporting on the East Coast is Naval Station Norfolk, which is currently homeport to five CVNs. No additional MILCON projects are required at this time to specifically support homeporting a maximum of five CVNs at Naval Station Norfolk. As these are the only two reasonable sites for homeporting a CVN on the east coast there was no requirement for a detailed assessment of other alternative sites.

VI. Conclusion

The Navy has not yet identified a preferred alternative for the Mayport EIS. The Navy will fully consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives being evaluated in the EIS.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 21, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information regarding current status of the ex-JOHN F. KENNEDY (CV 67) and the Department of the Navy's (DON) ongoing study that will support a future recommendation for final disposition of the vessel.

Specifically, Navy has determined that retaining the ship as a mobilization asset would be too costly. The Department is conducting a classified study regarding treatment of structural details of the vessel's hull to determine if the ship could be offered as a museum without causing irrevocable changes. Completing this study is necessary in order to evaluate ship disposition alternatives.

DON will provide a recommendation for final disposition of the vessel no later than October 1, 2008. The Department will retain custody and preserve the vessel through the commissioning of GEORGE H. W. BUSH (CVN 77), as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 21, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information regarding current status of the ex-JOHN F. KENNEDY (CV 67) and the Department of the Navy's (DON) ongoing study that will support a future recommendation for final disposition of the vessel.

Specifically, Navy has determined that retaining the ship as a mobilization asset would be too costly. The Department is conducting a classified study regarding treatment of structural details of the vessel's hull to determine if the ship could be offered as a museum without causing irrevocable changes. Completing this study is necessary in order to evaluate ship disposition alternatives.

DON will provide a recommendation for final disposition of the vessel no later than October 1, 2008. The Department will retain custody and preserve the vessel through the commissioning of GEORGE H. W. BUSH (CVN 77), as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 21, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information regarding current status of the ex-JOHN F. KENNEDY (CV 67) and the Department of the Navy's (DON) ongoing study that will support a future recommendation for final disposition of the vessel.

Specifically, Navy has determined that retaining the ship as a mobilization asset would be too costly. The Department is conducting a classified study regarding treatment of structural details of the vessel's hull to determine if the ship could be offered as a museum without causing irrevocable changes. Completing this study is necessary in order to evaluate ship disposition alternatives.

DON will provide a recommendation for final disposition of the vessel no later than October 1, 2008. The Department will retain custody and preserve the vessel through the commissioning of GEORGE H. W. BUSH (CVN 77), as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 21, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed report provides information regarding current status of the ex-JOHN F. KENNEDY (CV 67) and the Department of the Navy's (DON) ongoing study that will support a future recommendation for final disposition of the vessel.

Specifically, Navy has determined that retaining the ship as a mobilization asset would be too costly. The Department is conducting a classified study regarding treatment of structural details of the vessel's hull to determine if the ship could be offered as a museum without causing irrevocable changes. Completing this study is necessary in order to evaluate ship disposition alternatives.

DON will provide a recommendation for final disposition of the vessel no later than October 1, 2008. The Department will retain custody and preserve the vessel through the commissioning of GEORGE H. W. BUSH (CVN 77), as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act.

A similar letter has been sent to Chairmen Levin, Inouye, and Skelton. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

AIRCRAFT CARRIER FORCE STRUCTURE
-
DISPOSITION OF USS JOHN F KENNEDY (CV 67)

Prepared by
Naval Sea Systems Command
September 2007

AIRCRAFT CARRIER FORCE STRUCTURE
Disposition of USS JOHN F KENNEDY (CV 67)

I. Introduction

Pursuant to Conference Report 109-702 accompanying the fiscal year 2007 National Defense Authorization Act, Section 1011, the Secretary of the Navy shall report to the Congressional defense committees no later than October 1, 2007, regarding alternatives for the final disposition of USS JOHN F KENNEDY (CV 67). Specifically, Conference Report 109-702 stated:

> *The conferees further expect that, upon decommissioning from the U.S. Navy and completion of the ship's inactivation availability, the Navy will maintain CV–67 in a state of preservation (dehumidification, cathodic protection, and configuration control) pending determination of final disposition. In the event it is determined that CV–67 is to be retired from operational status, the Secretary of the Navy shall evaluate other alternatives for final disposition, to include maintenance in a reduced mobilization status, donation as a museum article, or striking from the naval vessel registry; and report the findings with the Secretary of the Navy's recommendation to the congressional defense committees not later than October 1, 2007. Under all circumstances, the Navy shall retain custody of CV–67 at least until commissioning of CVN–77. If the aircraft carrier is transferred from the custody and control of the Navy, the Secretary of the Navy shall require as a condition of such transfer that the transferee, upon request of the Secretary of Defense, return the vessel to the United States. In such a case, unless the transferee is otherwise notified by the Secretary of the Navy, the title to the vessel shall revert immediately to the United States.*

II. The decommissioning of USS JOHN F KENNEDY (CV 67)

Pursuant to the authority provided in the Fiscal Year 2007 National Defense Authorization Act, Section 1011, the accomplishment of towing preparations and safe stowage inactivation work began on March 30, 2007, in Mayport, FL and completed on schedule. On July 26, 2007, the ship departed Mayport, FL under tow to Naval Station Norfolk, VA, arriving on July 31, 2007. The ship will be further towed to the Navy's inactive ship maintenance facility in Philadelphia, PA upon completion of towing arrangements acceptable to the Delaware River Pilots Association.

The Navy evaluated inactivating the ship in a reduced mobilization status and found the option too costly. The installation of dehumidification and cathodic protection equipment will preserve the ship pending a final disposition decision by the Secretary of the Navy.

The ship's internal cathodic protection system has been energized for the protection of the external underwater hull against corrosion and is currently operational. The installation of dehumidification equipment and distribution systems for the preservation of internal spaces at 40% relative humidity is scheduled to be completed by November 20, 2007, thus completing all required inactivation work necessary to preserve the ship pending determination of its final disposition.

The ship's crew conducted a ceremony on March 23, 2007 in Mayport, FL, to commemorate the ship's decommissioning following more than 38 years of active service. The ship was officially decommissioned and retired from operational status on August 1, 2007.

III. The disposition of ex-JOHN F KENNEDY (CV 67)

The Navy will retain custody of ex-JOHN F KENNEDY in a state of preservation until at least the commissioning of GEORGE H W BUSH (CVN 77), as required by the Fiscal Year 2007 National Defense Authorization Act, Section 1011.

The Navy has initiated a classified study regarding the treatment of structural details of the ship's hull that is necessary to determine the ability to use her as a museum without causing irrevocable changes. Completion of this study is necessary to evaluate alternatives for final disposition of the ship. As a result, the Secretary of the Navy has not yet made a determination regarding the ship's final disposition (e.g., strike, museum hold, etc.) and has not stricken the ship from the Naval Vessel Register. It is anticipated that by October 1, 2008, the Navy will report to the Congressional Defense Committees the findings of the study, along with the Secretary of the Navy's recommendation on final disposition of ex-JOHN F KENNEDY.

Should the ship eventually be authorized for donation, the Navy will issue a Federal Register notice announcing the availability of the ship for donation transfer as a museum/memorial. In this situation, a contractual condition of the ship donation transfer will require that upon the request of the Secretary of Defense, the title and vessel shall revert immediately to the United States.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

September 11, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As you know, Senate Report 109-254 directed the Secretary of the Navy to commission a study to assess the progress of chiropractic health care services in reducing musculoskeletal disabilities among active-duty personnel. This letter covers the Navy's progress from June 14, 2007 to August 31, 2007.

In May 2007, the Center for Naval Analysis (CNA) was contracted to perform the study required by the Senate Report.

This study has four goals:

1. Assess the progress of Department of Defense (DoD) program to provide chiropractic benefits to active duty personnel.
2. Assess the efficacy of these services in reducing musculoskeletal disabilities among active duty personnel. As part of the assessment, the study is to evaluate the effectiveness of the care provided to military personnel, specifically including pilots and infantry.
3. Develop metrics for measurement of appropriate chiropractic treatment outcomes.
4. Identify requirements for further research.

This study will deliver the following reports:

- An interim report is due to the Department of the Navy (DON) for review on September 30, 2007
- A final report, based on original research, will be delivered on April 30, 2008

The core of the study is a retrospective study of medical and personnel records. We will look for evidence of the efficacy of chiropractic care by looking at individuals who have received this care, and comparing various aspects of their experience to matched cohorts of similar individuals with the same conditions or injuries. Additionally, the study will review the DoD chiropractic implementation plan.

This study proposes matching administrative summaries of medical records in TRICARE Management Activity (TMA) data systems to extracts from Navy and Marine Corps personnel records. Only by performing this match do we obtain the range of information necessary to complete this study. However, to accomplish this match, researchers must have access to sensitive protected health information. Due to the potential for harm from unauthorized release

of this information, extensive reviews are conducted in order to assure that appropriate procedures are in place to protect individuals from unauthorized information disclosure.

Progress to date includes the following:

- In July, we submitted the study protocol and supporting documents to the Institutional Review Board at the National Naval Medical Center in Bethesda. This review is required to insure compliance with Title 45 CFR part 46 subparts A-D (human protections) and the Privacy Act of 1974, regarding welfare and privacy of study subjects.
- In August, we submitted a data use agreement to TMA as part of the process of obtaining access to historical medical data.
- Work is in progress on the September 30, 2007, interim report.

Near term deliverables include the following:

- On September 30, 2007, DON will review an interim report. This report will analyze progress in the DoD chiropractic care implementation program. In addition, this report will include an analysis of results and data obtained for a recent study of chiropractic health care conducted for TMA. This will include information on trends in chiropractic care over time and an analysis of current treatment practices.

I will periodically update you on the progress of this study. Please let me know if you have any questions.

Sincerely,

William A. Navas, Jr
Assistant Secretary of the Navy
Manpower and Reserve Affairs

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

September 11, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As you know, Senate Report 109-254 directed the Secretary of the Navy to commission a study to assess the progress of chiropractic health care services in reducing musculoskeletal disabilities among active-duty personnel. This letter covers the Navy's progress from June 14, 2007 to August 31, 2007.

In May 2007, the Center for Naval Analysis (CNA) was contracted to perform the study required by the Senate Report.

This study has four goals:

1. Assess the progress of Department of Defense (DoD) program to provide chiropractic benefits to active duty personnel.
2. Assess the efficacy of these services in reducing musculoskeletal disabilities among active duty personnel. As part of the assessment, the study is to evaluate the effectiveness of the care provided to military personnel, specifically including pilots and infantry.
3. Develop metrics for measurement of appropriate chiropractic treatment outcomes.
4. Identify requirements for further research.

This study will deliver the following reports:

- An interim report is due to the Department of the Navy (DON) for review on September 30, 2007
- A final report, based on original research, will be delivered on April 30, 2008

The core of the study is a retrospective study of medical and personnel records. We will look for evidence of the efficacy of chiropractic care by looking at individuals who have received this care, and comparing various aspects of their experience to matched cohorts of similar individuals with the same conditions or injuries. Additionally, the study will review the DoD chiropractic implementation plan.

This study proposes matching administrative summaries of medical records in TRICARE Management Activity (TMA) data systems to extracts from Navy and Marine Corps personnel records. Only by performing this match do we obtain the range of information necessary to complete this study. However, to accomplish this match, researchers must have access to sensitive protected health information. Due to the potential for harm from unauthorized release

of this information, extensive reviews are conducted in order to assure that appropriate procedures are in place to protect individuals from unauthorized information disclosure.

Progress to date includes the following:

- In July, we submitted the study protocol and supporting documents to the Institutional Review Board at the National Naval Medical Center in Bethesda. This review is required to insure compliance with Title 45 CFR part 46 subparts A-D (human protections) and the Privacy Act of 1974, regarding welfare and privacy of study subjects.
- In August, we submitted a data use agreement to TMA as part of the process of obtaining access to historical medical data.
- Work is in progress on the September 30, 2007, interim report.

Near term deliverables include the following:

- On September 30, 2007, DON will review an interim report. This report will analyze progress in the DoD chiropractic care implementation program. In addition, this report will include an analysis of results and data obtained for a recent study of chiropractic health care conducted for TMA. This will include information on trends in chiropractic care over time and an analysis of current treatment practices.

I will periodically update you on the progress of this study. Please let me know if you have any questions.

Sincerely,

William A. Navas, Jr
Assistant Secretary of the Navy
Manpower and Reserve Affairs

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

September 11, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As you know, Senate Report 109-254 directed the Secretary of the Navy to commission a study to assess the progress of chiropractic health care services in reducing musculoskeletal disabilities among active-duty personnel. This letter covers the Navy's progress from June 14, 2007 to August 31, 2007.

In May 2007, the Center for Naval Analysis (CNA) was contracted to perform the study required by the Senate Report.

This study has four goals:

1. Assess the progress of Department of Defense (DoD) program to provide chiropractic benefits to active duty personnel.
2. Assess the efficacy of these services in reducing musculoskeletal disabilities among active duty personnel. As part of the assessment, the study is to evaluate the effectiveness of the care provided to military personnel, specifically including pilots and infantry.
3. Develop metrics for measurement of appropriate chiropractic treatment outcomes.
4. Identify requirements for further research.

This study will deliver the following reports:

- An interim report is due to the Department of the Navy (DON) for review on September 30, 2007
- A final report, based on original research, will be delivered on April 30, 2008

The core of the study is a retrospective study of medical and personnel records. We will look for evidence of the efficacy of chiropractic care by looking at individuals who have received this care, and comparing various aspects of their experience to matched cohorts of similar individuals with the same conditions or injuries. Additionally, the study will review the DoD chiropractic implementation plan.

This study proposes matching administrative summaries of medical records in TRICARE Management Activity (TMA) data systems to extracts from Navy and Marine Corps personnel records. Only by performing this match do we obtain the range of information necessary to complete this study. However, to accomplish this match, researchers must have access to

sensitive protected health information. Due to the potential for harm from unauthorized release of this information, extensive reviews are conducted in order to assure that appropriate procedures are in place to protect individuals from unauthorized information disclosure.

Progress to date includes the following:

- In July, we submitted the study protocol and supporting documents to the Institutional Review Board at the National Naval Medical Center in Bethesda. This review is required to insure compliance with Title 45 CFR part 46 subparts A-D (human protections) and the Privacy Act of 1974, regarding welfare and privacy of study subjects.
- In August, we submitted a data use agreement to TMA as part of the process of obtaining access to historical medical data.
- Work is in progress on the September 30, 2007, interim report.

Near term deliverables include the following:

- On September 30, 2007, DON will review an interim report. This report will analyze progress in the DoD chiropractic care implementation program. In addition, this report will include an analysis of results and data obtained for a recent study of chiropractic health care conducted for TMA. This will include information on trends in chiropractic care over time and an analysis of current treatment practices.

I will periodically update you on the progress of this study. Please let me know if you have any questions.

Sincerely,

William A. Navas, Jr
Assistant Secretary of the Navy
Manpower and Reserve Affairs

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

September 11, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As you know, Senate Report 109-254 directed the Secretary of the Navy to commission a study to assess the progress of chiropractic health care services in reducing musculoskeletal disabilities among active-duty personnel. This letter covers the Navy's progress from June 14, 2007 to August 31, 2007.

In May 2007, the Center for Naval Analysis (CNA) was contracted to perform the study required by the Senate Report.

This study has four goals:

1. Assess the progress of Department of Defense (DoD) program to provide chiropractic benefits to active duty personnel.
2. Assess the efficacy of these services in reducing musculoskeletal disabilities among active duty personnel. As part of the assessment, the study is to evaluate the effectiveness of the care provided to military personnel, specifically including pilots and infantry.
3. Develop metrics for measurement of appropriate chiropractic treatment outcomes.
4. Identify requirements for further research.

This study will deliver the following reports:

- An interim report is due to the Department of the Navy (DON) for review on September 30, 2007
- A final report, based on original research, will be delivered on April 30, 2008

The core of the study is a retrospective study of medical and personnel records. We will look for evidence of the efficacy of chiropractic care by looking at individuals who have received this care, and comparing various aspects of their experience to matched cohorts of similar individuals with the same conditions or injuries. Additionally, the study will review the DoD chiropractic implementation plan.

This study proposes matching administrative summaries of medical records in TRICARE Management Activity (TMA) data systems to extracts from Navy and Marine Corps personnel records. Only by performing this match do we obtain the range of information necessary to complete this study. However, to accomplish this match, researchers must have access to

sensitive protected health information. Due to the potential for harm from unauthorized release of this information, extensive reviews are conducted in order to assure that appropriate procedures are in place to protect individuals from unauthorized information disclosure.

Progress to date includes the following:

- In July, we submitted the study protocol and supporting documents to the Institutional Review Board at the National Naval Medical Center in Bethesda. This review is required to insure compliance with Title 45 CFR part 46 subparts A-D (human protections) and the Privacy Act of 1974, regarding welfare and privacy of study subjects.
- In August, we submitted a data use agreement to TMA as part of the process of obtaining access to historical medical data.
- Work is in progress on the September 30, 2007, interim report.

Near term deliverables include the following:

- On September 30, 2007, DON will review an interim report. This report will analyze progress in the DoD chiropractic care implementation program. In addition, this report will include an analysis of results and data obtained for a recent study of chiropractic health care conducted for TMA. This will include information on trends in chiropractic care over time and an analysis of current treatment practices.

I will periodically update you on the progress of this study. Please let me know if you have any questions.

Sincerely,

William A. Navas, Jr
Assistant Secretary of the Navy
Manpower and Reserve Affairs

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

on the

MINE RESISTANT AMBUSH PROTECTED (MRAP) VEHICLE PROGRAM

Prepared by:
Assistant Secretary of the Navy
Research, Development and Acquisition
1000 Navy Pentagon
Washington, DC 20350-1000

December 2007

BACKGROUND

The Conference Report to accompany the U.S. Troop Readiness, Veteran's Care, Katrina Recovery, and Iraq Accountability Act, H. Rep. No. 110-107, requested the military services to jointly report to the congressional defense committees on the Mine Resistant Ambush Protected (MRAP) vehicle program's (1) status, (2) requirements, and (3) the execution of funds.

In addition, the National Defense Authorization Act for Fiscal Year 2008, House Armed Services Committee Report, H. Rep. No. 110-146, directed the Assistant Secretary of the Navy for Research, Development and Acquisition to submit updates every 30 days to the congressional defense committees on: (1) MRAP requirements; (2) contracting strategy; (3) test and evaluation; (4) sustainment strategy; and (5) implications for other acquisition programs considering contract priority ratings.

The following sections identify the changes in status since the last monthly report.

PROGRAM STATUS

The joint MRAP program is an ACAT ID program with a validated total requirement of 15,274 vehicles, plus 100 ballistic test vehicles. The program's estimated cost is $24.547 billion. The program received $5.2 billion in fiscal year 2008 funding under a continuing resolution in October (Public Law 110-92), and an additional $11.63 billion under the Fiscal Year 2008 Defense Appropriations Act in November (Public Law 110-116).

As of December 19, 2007, 8,815 vehicles have been ordered, in addition to the original 36 test vehicles and 1,024 Low Rate of Initial Production (LRIP) vehicles that have already been fielded. Upon vehicle acceptance by the Government, integration of communication and countermeasure systems is performed at the Space and Naval Warfare Center, Charleston, South Carolina. Vehicles are then shipped to the warfighter. Attachment 1 shows the timeline of MRAP vehicle production, integration and delivery.

REQUIREMENTS

The Marine Corps announced on November 30, 2007 that, after a thorough review, that it would be reducing its requirement for MRAP vehicles from 3,700 to approximately 2,300 vehicles. The Joint Requirements Oversight Council (JROC) is expected to validate the new Marine Corps requirement in the near term. The JROC will also examine Army MRAP vehicle requirements upon completion of a Theater Operational Assessment in mid-February 2008 and review of future force structure in Theater. The JROC memorandum of September 5, 2007, which validated a combined service requirement for 15,274 vehicles, plus 100 ballistic test vehicles, also stated that the final requirement for MRAP vehicles will be modified by "continual assessment of changing threat conditions, feedback from commanders in theater, and potential changes in strategic landscape and assigned missions."

EXECUTION OF FUNDS

Attachment 2 contains a spreadsheet describing the execution of MRAP vehicle funding as of December 19, 2007.

CONTRACTING STRATEGY

On July 31, 2007, a Request For Proposals (RFP) was released for follow-on MRAP vehicle acquisition – MRAP II – to identify additional manufacturers with the capability to produce life-saving vehicles with survivability characteristics beyond those currently in production. The joint program office has evaluated prototype test vehicles received under the solicitation and on 18 December placed delivery orders with two contractors for armor coupons and 6 test vehicles each.

TEST AND EVALUATION

Developmental Testing – Phase II and III (DT-C2 and DT-C3) continue. One contractor is also in Initial Operational Test and Evaluation (IOT&E) and three other contractors have vehicles on-site preparing for commencement of IOT&E. DT-C2 includes ballistic and automotive performance, human factors, safety, interoperability, and logistics demonstrations. DT-C3 includes survivability testing. Technology improvements, through spiral development, are being incorporated and will be verified through testing. IOT&E will be conducted for each contractor between September 2007 and April 2008 in parallel due to Operational Test personnel (Soldiers and Marines) and fully integrated test vehicle

availability. IOT&E for MRAP II contractors will not be scheduled until contract award.

SUSTAINMENT STRATEGY

The MRAP contracts include one base year and one option year of Contractor Logistics Support, as well as, those contracting line items for organically supporting the MRAP vehicles. The near-term logistics plan for the in-theater support of this urgent fielding is being tailored to ensure maximum vehicle readiness. The JPO is executing a revised hybrid logistics and sustainment strategy to apply lessons learned and to respond to program acceleration and growth and theater feedback.

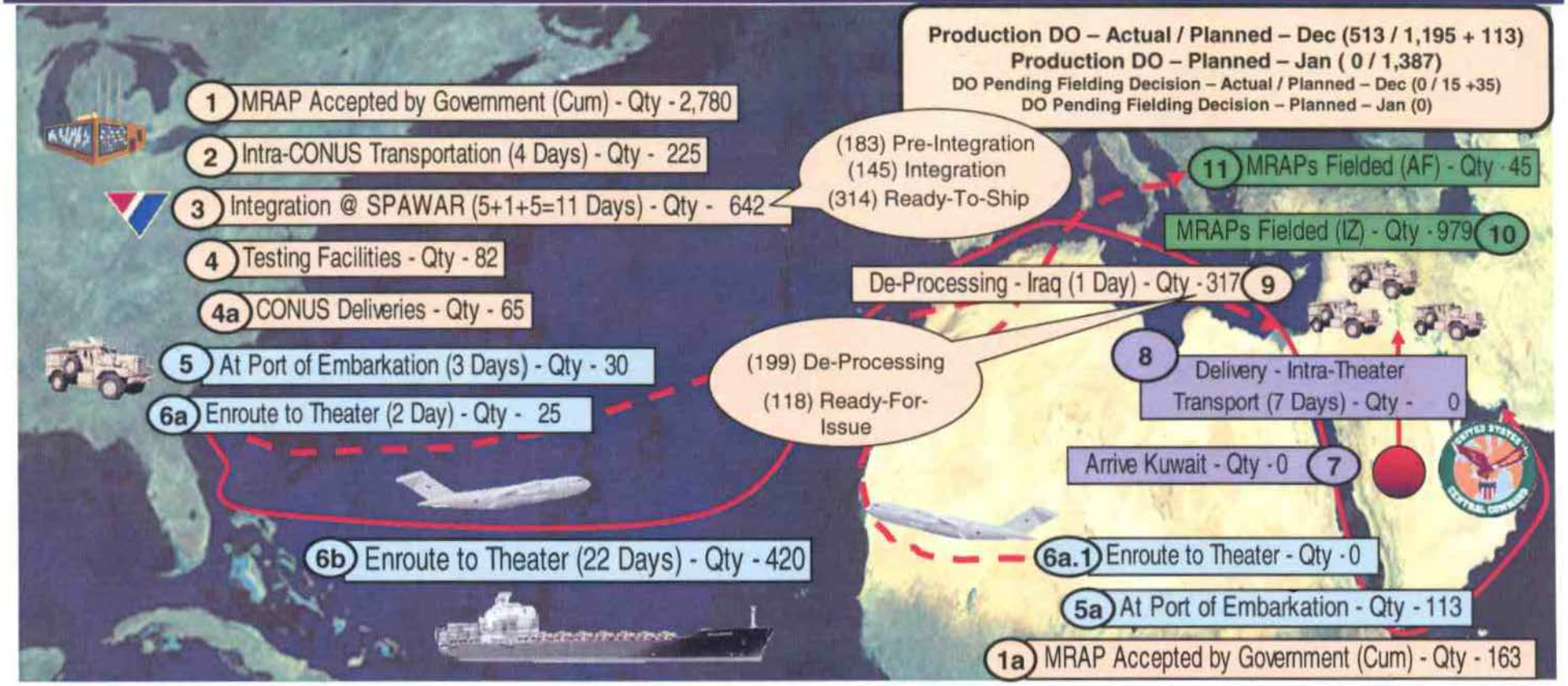
IMPLICATIONS FOR OTHER ACQUISITION PROGRAMS CONSIDERING CONTRACT PRIORITY RATINGS

Critical Solutions International, the prime contractor for the Interim Vehicle Mounted Mine Detector (IVMMD) Route Clearance Vehicle (RCV) reported a 30-day slip in production due to the availability of axles from Axletech. This is expected to become a 60 day slip in December 2007 and will affect both new production and the sustainment of systems in theater. Axletech is reportedly not able to provide the required quantities due to competing DX rated MRAP orders. The IVMMD, along with other Army RCV programs, recently received approval to use DX ratings on their orders. Axletech is in the process of developing a domestic capability that would double their production output by May 2008. Both of these changes will help to reduce future delivery disruptions.

The Army incurred a production disruption in October on the Stryker Common Ballistic Shield (CBS) kit program. DO rated Stryker CBS orders at Algoma Steel were pushed back at least two months due to competing MRAP DX orders. To permit CBS production to resume, the Army Secretary approved a waiver from the steel and armor plate prohibition against using steel in arsenals and depots that is not melted and rolled inside the U.S. or Canada. This enabled the program to acquire armor steel plate from Oregon Steel, which normally would not be a qualified supplier because its steel is melted in Mexico and rolled in the U.S.

The Department continues to closely monitor the industrial base and develop proactive mitigation strategies to address potential programmatic impacts.

Production, Integration, & Delivery Times - As Of: 19 Dec 07 (16:16)



NOTES:

- Included in the "Ready-to-Ship" quantities, under Step 3, are (2) Army Automotive Test vehicles, (5) USMC Automotive Test vehicles, and (2) EFP Fit up Vehicle.

Status of MRAP Vehicles

Service	A/O	JADB Allocation / Under Contract	Other / Legacy	Grand Totals	Steps																
					1	1a	2	3	4	4a	5	5a	6a	6a.1	6b	7	8	9	10	11
USMC	3,700	2,226	73	2,299	1,071		50	207	20	25					179			1	589	
Navy	544	345	18	363	181			10	1	23					52				95	
USA	10,000	5,382		5,382	1,310	113	31	391	27	6	30	113	25		189			316	295	
USAF	697	381		381	11		1	10												
SOCOM	333	259	50	309	43	50	42			8										45
Ballistic Test	100	48		48	40		1	6	33											
TBD / Other**		4		4	4					4										
LRIP		170		170	120		100	18	1	1										
Totals	15,374	9,815	141	8,956	2,780	163	225	642	82	65	30	113	25		420			317	979^	45

^ This number includes Legacy vehicles.

Pipeline Responsibility

- JPO MRAP
- TRANSCOM
- COCOM
- Service/Component
- Surface Ship
- Air Lift

MRAP Vehicle Procurement Funding

as of 19 Dec 07

$M	MRAP Budget Element	USMC/JPO	Army	Navy	Air Force	SOCOM	Total
Funded to Service	FY 06/Prev	$43		$130		$37	**$210**
	FY 07 Bridge Supplemental	$985	$70	$60			**$1,115**
	FY 07 Full Supplemental	$1,263	$1,217	$127	$139	$230	**$2,976**
	FY07 ATR (25 Jul 07)**	$44	$798	$107	$31	$110	**$1,090**
	FY 08 CR	$1,415	$3,190	$51	$243	$44	**$4,943**
	FY08 Supplemental	$153	$7,443	$215	$474	$176	**$8,461**
	Total	**$3,903**	**$12,718**	**$690**	**$887**	**$597**	**$18,795**
Funds Spent to date	Vehicles	$1,789	$3,830	$255	$127	$129	**$6,130**
	Other	$19	$30			$55	**$104**
	Testing	$57	$10				**$67**
	GFE/Integration	$793	$1,191	$131	$152	$154	**$2,421**
	Initial Support	$244	$820	$27	$38	$17	**$1,146**
	BDAR/Spares	$19	$95	$1	$36		**$151**
	Fielding/Facilities		$157				**$157**
	Spiral Upgrades**	$188	$926	$1			**$1,115**
	Total	**$3,109**	**$7,059**	**$415**	**$353**	**$355**	**$11,291**
Remaining Funding		$794	$5,659	$275	$534	$242	**$7,504**

** includes $200M identified for Advanced Procurement for Armor Plate

MRAP Vehicle RDT&E Funding

as of 19 Dec 07

$M	MRAP Budget Element	USMC/JPO	Army	Navy	Air Force	SOCOM	Total
Funded to Service	FY07 JIEDDO	$24					**$24**
	FY 07 Bridge Supplemental	$39	$20				**$59**
	FY 07 Full Supplemental	$12					**$12**
	FY07 ATR (25 Jul 07)	$75					**$75**
	FY08 CR		$20				**$20**
	FY08	$40					**$40**
	Total	**$190**	**$40**	**$0**	**$0**	**$0**	**$230**
Funds Spent to Date	MRAP I	$94	$20				**$114**
	MRAP II	$26	$20				**$46**
	Spiral Upgrades	$44					**$44**
	Total	**$164**	**$40**	**$0**	**$0**	**$0**	**$204**
Remaining Funding		$26	$0	$0	$0	$0	**$26**

MRAP Vehicle O&M Funding

as of 19 Dec 07

$M	MRAP Budget Element	USMC/JPO	Army	Navy	Air Force	SOCOM	Total
Funded to Service	FY07 Full Supplemental	$16		$10		$2	**$28**
Service	FY08 CR	$135	$50	$20	$20	$12	**$237**
	FY08	$169	$488	$8	$26	$8	**$699**
	Total	**$320**	**$538**	**$38**	**$46**	**$22**	**$964**
Funds Spent to Date	FY07 Transportation	$16		$10		$2	**$28**
	FY08 Transportation	$20	$30	$5			**$55**
	Sustainment/Facilities	$105					**$105**
	Total	**$141**	**$30**	**$15**	**$0**	**$2**	**$188**
Remaining Funding		$179	$508	$23	$46	$20	**$776**

Remaining in FY08 MRAP OSD Transfer Fund:	**$2,430**

Attachment (2)

Report to Congress

On

'Smart Buy' for a Tenth LPD 17 Class Ship

PREPARED BY:
PEO Ships
1333 Isaac Hull Avenue Stop 2401
Washington Navy Yard, DC 20376-2401

October 2007

I. Report Requirements

The FY 2008 Senate Armed Services Committee (SASC) Report (110-77) directs the Secretary of the Navy to submit a report not later than November 1, 2007, that outlines the funding required for a "smart buy" of LPD 26, maintaining continuous, uninterrupted production at critical vendors' and shipbuilders' facilities. The SASC is aware that construction for a tenth LPD 17 ship would not commence until FY 2009, but delaying procurement beyond 2009 would cause significant cost growth and jeopardize industrial base stability by introducing production breaks in the program.

II. Background

In light of competing priorities for resources, the President's Budget request for FY 2008 represents the best balance of resources to requirements. A significant disruption to the current shipbuilding plan would be created by including additional ships in the procurement plan without accompanying full funding outside Navy's accounts. However, if Congress provides funds for an additional LPD in FY 2008, the Navy could contract for this ship. Because of long lead material ordering and current LPD workload in the shipyard, this ship would likely begin construction in FY 2009. However, a significant disruption to the current shipbuilding plan would be created by including additional ships in the procurement plan without accompanying full funding from outside Navy's accounts.

Congress directed the Navy to submit a report outlining the funding required to support procurement of a 10th LPD 17 class ship (LPD 26). The following report identifies major milestones associated with contract award and construction assuming full funding is provided in FY 2008.

III. LPD 17 Class Construction Status

Three ships of the class have been delivered to the Navy. The lead ship is expected to deploy in 2008 after completion of its operational testing phase. LPD 19 recently completed INSURV Acceptance Trials, demonstrating that the technical baseline is stable and the Navy accepted delivery on September 28, 2007. LPD 20 and LPD 21 post-Hurricane Katrina schedules have recently been reset. The construction contract for LPD 22-24 has been awarded and long lead time material for LPD 25 is currently being ordered. The FY 2008 President's Budget request provides funding to complete LPD 25 and covers program closeout requirements. The contract option for LPD 25 will be exercised once funds are appropriated, and that is expected to happen in time to support an option exercise date no later than January 31, 2008.

If LPD 26 is authorized and appropriated, the Navy will pursue sole-source negotiations with the current LPD 17 class shipbuilder. An aggressive timeline to support Request for Proposal (RFP), fact-finding, and negotiations of a construction contract for LPD 26 is a minimum of six months.

IV. "Smart Buy" Approach

Using the current shipbuilder for the procurement of LPD 26 is the "smart buy" approach to take advantage of equipment pricing while there are current LPD 22-25 vendor production lines and maintain an uninterrupted ship production. Due to global demands on the metals market, a minimum of 13 months for steel lead times is required to support start of construction. The standard build time for an LPD 17 class ship is now 48 months. Factoring six months for proposal development and negotiation prior to contract award, the construction contract would result in a delivery 67 months after the ship construction RFP is released, as shown in Figure 1.

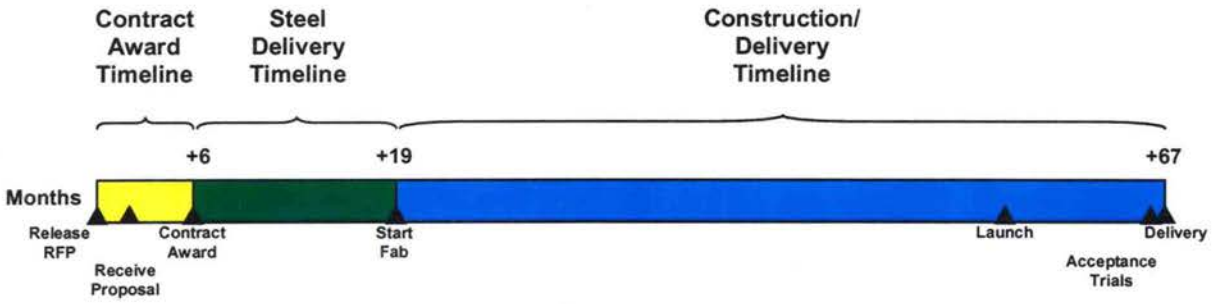


Figure 1: LPD 26 Smart Buy Schedule

To achieve the optimal schedule for start of construction (June 2009), an RFP release date no later than November 2007 is required; and funding in the amount of $1,700 million is required for contract award no later than May 2008.

V. Conclusion

If Congress were to fully fund LPD 26 in FY 2008, the Navy could execute the "smart buy" approach to maintain continuous, uninterrupted production at critical vendors and shipbuilders' facilities. This "smart buy" approach will facilitate a construction schedule that maximizes the benefits from the learning curve effect and economic order vendor pricing found in continuous production. Any amount less than full funding would require the Navy to provide additional unbudgeted funding in subsequent years and disrupt the balance of the shipbuilding plan. Full funding for LPD 26 in FY 2008 will provide a critical warfighting capability to the Fleet at the earliest opportunity while promoting stability in the shipbuilding industrial base and providing a transition path to future Navy ship acquisition programs.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 29 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear. Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the LPD 17 program.

Specifically, the report addresses a "smart buy" of a 10th LPD 17 class ship (LPD 26) that would maintain continuous, uninterrupted production at critical vendors and shipbuilders' facilities.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 29 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the LPD 17 program.

Specifically, the report addresses a "smart buy" of a 10th LPD 17 class ship (LPD 26) that would maintain continuous, uninterrupted production at critical vendors and shipbuilders' facilities.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 29 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the LPD 17 program.

Specifically, the report addresses a "smart buy" of a 10th LPD 17 class ship (LPD 26) that would maintain continuous, uninterrupted production at critical vendors and shipbuilders' facilities.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 29 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 House Armed Services Committee Report 110-146, the enclosed report provides requested information for the Littoral Combat Ship (LCS) program.

Specifically, the report addresses a "smart buy" of a 10th LPD 17 class ship (LPD 26) that would maintain continuous, uninterrupted production at critical vendors and shipbuilders' facilities.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

Delores M. Etter

Delores M. Etter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

Report to Congress

On

Ship Insulation

PREPARED BY:
Bureau of Medicine and Surgery
Washington, DC 20376-2401

January 2008

I. Report Requirements

The House of Representatives Committee on Appropriations FY2008 Department of Defense Appropriations report (110-279) directs the Department of the Navy, in consultation with the National Academy of Sciences (NAS), to assess the health effects of respirable, biopersistent manufactured vitreous fibers (MVF) in insulation materials installed on Naval vessels under construction, and to submit a report on those effects to the Committee no later than January 15, 2008.

II. Background

In 1997, the Navy requested the National Academy of Sciences (NAS) to review the Navy's scientific procedure used to justify a Navy unique manufactured vitreous fiber occupational exposure standard of 2 fibers per cubic centimeters (cc) of air established in 1995. Released in 2000, the NAS report specifically addressed the Navy's 2 fiber / cc occupational exposure standard by concluding, ''the Navy's documentation does not provide an adequate assessment of the role of fiber biopersistence in health effects''. Continued use of this exposure standard would have required Navy to provide significant toxicologic and biopersistence research to establish scientifically defensible evidence this exposure standard met or exceeded other recognized exposure standards.

In 2000, to best protect Navy civilian and military workers, the Navy implemented the alternative NAS recommendation in the report by adopting a scientifically valid occupational exposure standard of 1 fiber / cc. This exposure standard, developed by the American Conference of Industrial Hygienists (ACGIH) and currently adopted by the Department of Defense, considers all relevant toxicologic properties including biopersistence.

III. Assessment of the Health Effects

In response to the Committee's direction to assess health effects related to the use of manufactured vitreous fibers on Navy ships, the following actions have been taken:

a. Navy conducted an epidemiologic review to determine if a relationship exists between Navy and Marine Corps occupational exposures to MVF and pulmonary diseases that could be associated with these exposures. Relevant Navy and Marine Corps diagnoses were reviewed for the years 2001 through 2006 and then cross matched to the Navy's database containing MVF dust and fiber air sample results. This review did not find evidence of pulmonary disease due to MVF use or exposure.

b. Navy reviewed all obtainable worker exposure data for the representative types of manufactured vitreous fibers used by the Navy. The results indicated that occupational exposures above 1 fiber / cc were extremely rare occurrences and personnel were properly provided with protective equipment or other measures to prevent inhalation of fibers.

c. Navy will continue to monitor and analyze scientific literature of reputable peer reviewed MVF biopersistence studies to ensure there are no gaps in our understanding of biopersistence and its effect on health.

IV. Conclusion

The Navy chose to adopt the MVF standard of 1 fiber/ cc used by industry and the Department of Defense rather than promulgate a Navy unique standard requiring our own independent research to support such a standard. The Navy remains committed to protecting the health and welfare of our military, civilian, and contracted personnel.

The Navy has consulted with the National Academy of Sciences on this report. A representative of the National Academy is in the process of contacting the chairman of the original review committee to determine if there are any further actions.

THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 11 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the House Report 110-279, the enclosed report provides the requested information for the ship insulation assessment. Specifically, the report states that the Navy has adopted an industry standard in lieu of developing its own standard for insulation materials installed on newly built Naval vessels.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

B.J. Penn

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 11 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

As directed by the House Report 110-279, the enclosed report provides the requested information for the ship insulation assessment. Specifically, the report states that the Navy has adopted an industry standard in lieu of developing its own standard for insulation materials installed on newly built Naval vessels.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 11 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman:

As directed by the House Report 110-279, the enclosed report provides the requested information for the ship insulation assessment. Specifically, the report states that the Navy has adopted an industry standard in lieu of developing its own standard for insulation materials installed on newly built Naval vessels.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 11 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

As directed by the House Report 110-279, the enclosed report provides the requested information for the ship insulation assessment. Specifically, the report states that the Navy has adopted an industry standard in lieu of developing its own standard for insulation materials installed on newly built Naval vessels.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

December 20, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the National Defense Sealift Fund.

Specifically, the report addresses the future viability and availability of defense-related university-based research and development capabilities and the future opportunities for industry collaboration in support of military strategic sealift mobility.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

December 20, 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the National Defense Sealift Fund.

Specifically, the report addresses the future viability and availability of defense-related university-based research and development capabilities and the future opportunities for industry collaboration in support of military strategic sealift mobility.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

December 20, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the National Defense Sealift Fund.

Specifically, the report addresses the future viability and availability of defense-related university-based research and development capabilities and the future opportunities for industry collaboration in support of military strategic sealift mobility.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

December 20, 2007

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, the enclosed report provides requested information for the National Defense Sealift Fund.

Specifically, the report addresses the future viability and availability of defense-related university-based research and development capabilities and the future opportunities for industry collaboration in support of military strategic sealift mobility.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

Report to Congress

On

National Defense Sealift Fund

PREPARED BY:
Strategic Mobility & Combat Logistics, OPNAV N42
1550 Crystal Drive, Suite 1002
Arlington, VA 22202

December 2007

I. Report Requirements

The FY 2008 Senate Armed Services Committee Report (S.Rept. 110-77) directs the Secretary of Defense to submit a report no later than January 1, 2008, that outlines the future viability and availability of defense related university-based research and development (R&D) capabilities and the future opportunities for industry collaboration in support of military strategic sealift mobility.

II. Background

Section 2218.c.1.D of Title 10, United States Code, authorizes the National Defense Sealift Fund (NDSF) to fund "research and development relating to national defense sealift" for vessels that include maritime prepositioning and combat logistics force ships. The February 2007 PB 2008 NDSF Budget request included $96.6 million for R&D. The FY 2008 Defense Appropriations law (P.L.110-116) reduced NDSF R&D by $30 million. This cut mirrors language included in the Senate Armed Services Committee report calling on the Navy to rephase certain MPF(F) research and development efforts.

The current NDSF R&D budget of $66.6 million is subdivided into three Projects:

Project #	Title	PB08 ($M)
3110	MPF(F) R&D	37.86
3116	Sealift R&D	6.19
3117	Operational Logistics Integration (OPLOG)	22.59

III. Project 3110: Maritime Preposition Force (Future) – MPF(F) R&D

In FY 2008, $37.86 million (57%) of the NDSF R&D appropriation is provided in Project 3110 for the MPF(F) program, a reduction of $30.0 million from the PB 2008 estimates for this project. MPF(F) is designed to meet Navy/Marine Corps strategic sealift prepositioning and operational requirements using largely commercial ship capabilities. R&D funds are being used for MPF(F) squadron system definition; engineering and operational studies and ship concept designs; acquisition planning and documentation development; and technology demonstration and validation efforts supporting ship acquisition risk-reduction. Efforts include systems level tests of specific components and subsystems leading to full-scale operational tests and demonstrations. Specifically these efforts address technology evaluation across the MPF(F) family of ships and interface development for the integrated operation of MPF(F), including interoperability with Joint, coalition, and commercial vessels. Contracts will be awarded in FY 2008 to the shipbuilding industry to initiate the Phase I (preliminary/contract design) for the Mobile Landing Platform ship. Commercially-developed technologies such as an inter-ship ramp system, propulsion system, dynamic positioning system and advanced crane system are planned for the MPF(F) concept of operations and are included in the MPF(F) risk reduction efforts.

IV. Project 3116: Sealift R&D

In FY 2008, $6.19 million (9%) of the NDSF R&D appropriation is provided in Project 3116 (Sealift R&D program) in support of concept and technology development of future strategic sealift systems. In FY 2008 (and beyond) a portion of these funds will be used for risk-reduction demonstration of advanced at-sea container handling technologies to transition that capability to future and/or in-service sealift platforms. Additionally the Sealift R&D portfolio includes lighterage and crane technology improvements to provide integrated strategic mobility for Joint and coalition forces.

V. Project 3117: Operational Logistics Integration (OPLOG)

The remaining $22.59 million (34%) of the FY 2008 NDSF R&D appropriation is provided in Project 3117 (OPLOG program) supporting development of enabling technologies for future and in-service combat logistics force and combatant afloat operational logistics. In FY 2008, $12 million of those funds will support development, testing and evaluation of improved connected replenishment (CONREP) technologies for combat logistics force vessels supporting Navy surface combatants and aircraft carriers. Managed within OPLOG, these efforts will provide required ship-to-ship material transfer capabilities for emerging and in-service weapons and logistics systems while reducing the total ownership cost of fielding and maintaining shipboard underway replenishment systems. In addition to improved CONREP development, OPLOG is conducting integration, testing and evaluation of commercially-developed dual use technologies including automated storage and retrieval capability, automated identification technologies such as active and passive radio-frequency identification, and intermodel containerization and packaging for Joint and commercial logistics communities. The latter effort is the subject of a three-year OSD/multi-Service funded Joint Capabilities Technology Demonstration (JCTD) designed to rapidly introduce, evaluate, and field improved capability to the warfighter.

The OPLOG program solicited and funded industry proposals via a Broad Agency Announcement (BAA) in FY 2006 and will do so again in FY 2008. The BAA provides an opportunity for industry and academia to propose integrated technologies, representative modes and prototype systems for competitive consideration and award. Specific focus will be given to ensure proposals from academia are requested.

VI. Conclusion

The NDSF R&D portfolio has been developed to fund technology development, ship system interface definition, and conduct phased testing and evaluation to transition improved capabilities to strategic sealift pre-positioning and combat logistics force vessels and programs of record. This portfolio provides a balance of technology development and transition in the face of declining budgets over the Fiscal Year Development Plan (FYDP).

Industry and academia have proven valuable partners through the competitive procurement process (currently Virginia Tech, University of Colorado at Boulder, Michigan Tech, University of Texas, and Naval Postgraduate School are actively working on NDSF-funded projects) and will continue to be engaged through BAAs and other open solicitations. Industry participation has and will continue to include shipyards, naval and marine equipment designers, fabricators, and suppliers and offshore service providers. Additionally, logistics R&D opportunities are available through Navy and DoD organizations such as ONR, United States Marine Corps (particularly in areas of sense and respond logistics) and U.S. Transportation Command. NDSF-funded programs cooperate with DoD partners to sponsor integrated technology development efforts consistent with organizational and mission requirements and responsibilities.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 1, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

This responds to a requirement set forth in the Report on the National Defense Authorization Act for Fiscal Year 2008 by the House Armed Services Committee. The Department of the Navy is required to submit to the Senate and House Committees on Armed Services a report on those activities undertaken by the Department under the authority of the National Defense Exemption (NDE) for certain military readiness activities employing mid-frequency active (MFA) sonar from the legal requirements of the Marine Mammal Protection Act (MMPA).

As required by the Committee, the enclosed report includes an assessment of the increase in military readiness, the estimated number and species of marine mammals injured and killed as a result of those activities undertaken under the authority of the national defense exemption, and an estimate of the population level effect, if any, on these species. Additionally, the report provides an update on activities undertaken by the Navy to achieve full compliance with the MMPA.

The report concludes that the Navy's use of MFA sonar in various training activities over CY07 did not kill or injure any marine mammals. Furthermore, the potential for population level effect on any marine mammal species or stock was found to be negligible.

The NDE continues to be a critical and essential bridge to long-term compliance with the MMPA regarding the Navy's need to train effectively with MFA sonar. The Navy remains fully committed to working closely with the National Marine Fisheries Service through the environmental planning and MMPA authorization processes toward completion of the environmental impact statements for the Navy's ranges and operating areas.

A similar letter has been sent to Chairman Skelton. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 1, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

This responds to a requirement set forth in the Committee's Report on the National Defense Authorization Act for Fiscal Year 2008. The Department of the Navy is required to submit to the Senate and House Committees on Armed Services a report on those activities undertaken by the Department under the authority of the National Defense Exemption (NDE) for certain military readiness activities employing mid-frequency active (MFA) sonar from the legal requirements of the Marine Mammal Protection Act (MMPA).

As required by the Committee, the enclosed report includes an assessment of the increase in military readiness, the estimated number and species of marine mammals injured and killed as a result of those activities undertaken under the authority of the national defense exemption, and an estimate of the population level effect, if any, on these species. Additionally, the report provides an update on activities undertaken by the Navy to achieve full compliance with the MMPA.

The report concludes that the Navy's use of MFA sonar in various training activities over CY07 did not kill or injure any marine mammals. Furthermore, the potential for population level effect on any marine mammal species or stock was found to be negligible.

The NDE continues to be a critical and essential bridge to long-term compliance with the MMPA regarding the Navy's need to train effectively with MFA sonar. The Navy remains fully committed to working closely with the National Marine Fisheries Service through the environmental planning and MMPA authorization processes toward completion of the environmental impact statements for the Navy's ranges and operating areas.

A similar letter has been sent to Chairman Levin. As always, if I can be of further assistance, please let me know.

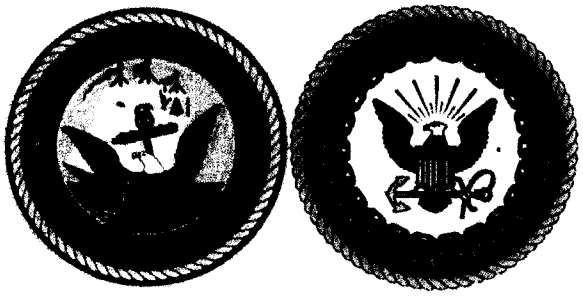
Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Member

Activities Taken under the Authority of the National Defense Exemption under the Marine Mammal Protection Act Issued on 23 January 2007



February 2008

EXECUTIVE SUMMARY

The Department of the Navy (Navy) has prepared this report as required by the House Committee on Armed Services (HASC) in its Committee's Report on the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2008. This report provides information regarding the activities undertaken by the Navy under the authority of the National Defense Exemption (NDE) (Appendix A) under the Marine Mammal Protection Act (MMPA) invoked by the Deputy Secretary of Defense (DEPSECDEF) on January 23, 2007, an assessment of the military readiness during this period, the estimated number of marine mammals killed or injured during this period, an estimate of the population level effects, if any, and an update on Navy's progress to achieve full compliance with the MMPA.

In Calendar Year (CY) 2007, the Navy conducted myriad testing and training activities within the Department of Defense's (DoD's) established ranges and established operating areas (OPAREAs), including 12 major training exercises employing mid-frequency active sonar (MFAS), the use of which was exempt from compliance with the legal requirements of the MMPA. These exercises included three Undersea Warfare Exercises (USWEXs) in the Hawaiian Islands Range Complex (HRC); two Joint Task Force Exercises (JTFEXs) in the Southern California (SOCAL) OPAREA; five Composite Training Unit Exercises (COMPTUEXs), three in the SOCAL OPAREA and two on the East Coast; one combined COMPTUEX/JTFEX on the East Coast; and one Valiant Shield (VS) around the Northern Mariana Islands. Prior to conducting these exercises, the Navy prepared appropriate environmental planning documentation. The analysis of potential effects to marine mammals from the use of MFAS during these exercises did not predict mortality or injury to marine mammals. Additionally, this analysis concluded that there would be no adverse effects on the annual rates of recruitment or survival of any marine mammal species or stocks, including strategic or depleted stocks. Through the use of after action reporting (AAR), the Navy verified that the conclusions drawn in their environmental planning documentation were appropriate. Additionally, the observers onboard Navy vessels did not see any marine mammals within the geographic distance of a transmitting vessel which would cause harm. To the best of the Navy's knowledge, there were no individual marine mammals harmed during these activities, and the Navy determines the potential for a population level effect is negligible.

This report concludes that military readiness has not increased under the NDE; rather, one statutory basis on which the Navy can be challenged regarding environmental compliance has been removed. Prior to the NDE, legal claims under MMPA resulted in restrictions on the Navy's ability to train effectively. The required training was compromised, with future training in jeopardy without the exemption. While the MMPA has been removed as a basis for legal challenges, the Navy's ability to train and meet its statutory requirement to train and maintain a ready force, which includes training with MFAS, remains at risk due to legal challenges based on other environmental laws, specifically the National Environmental Policy Act (NEPA), the Coastal Zone Management Act (CZMA), and the Endangered Species Act (ESA).

TABLE OF CONTENTS

1.0 Introduction **1**
1.1 Report Requirement *1*
1.2 National Defense Exemption (NDE) Background *1*
1.3 Mitigation Measures During the NDE Period *2*
2.0 Activities Taken Under the Authority of the NDE **2**
2.1 Activities Undertaken within Established DoD Maritime Ranges or OPAREAs *2*
2.1.1 Unit Level Training Activities 2
2.1.2 Coordinated Unit Level Training Activities 3
2.1.3 Major Training Exercises 3
2.1.4 Research Development Testing & Evaluation (RDT&E) 3
2.1.5 Active Sonar Maintenance 3
2.2 Major Training Exercises Conducted Under the NDE *3*
2.2.1 COMPTUEXs 4
2.2.2 JTFEXs 4
2.2.3 USWEXs 4
2.2.4 Exercise Valiant Shield 07 5
2.3 Activities Relating to the IEER Sonobuoy *5*
3.0 Military Readiness Assessment **5**
3.1 The Navy's Statutory Mission – Maintain Military Readiness *5*
3.2 Readiness Through Training *5*
3.2.1 Training with Sonar 6
3.3 The NDE and Military Readiness *6*
4.0 Estimated Number and Species of Marine Mammals Killed or Injured. **7**
5.0 Population Level Effects **8**
5.1.1 Summary of NMFS' Population Level Effects Findings for Navy MFAS Actions 9
6.0 MMPA Compliance Progress and Update for 2007 ..... **9**
6.1 Background *9*
6.2 Navy Range EIS Status *10*
7.0 Summary **10**

LIST OF APPENDICES

Appendix A – National Defense Exemption **A-1**

LIST OF TABLES

Table 1 – Major Exercises using MFAS by Type and Location **4**
Table 2 - Marine Mammal Exposure Estimates and Sightings From Major Training Exercises Conducted in 2007 ..... **8**

ACRONYMS AND ABBREVIATIONS

AAR	After Action Report
AFAST	Atlantic Fleet Active Sonar Training
ASW	Anti-Submarine Warfare
BO	Biological Opinion
CG	Aegis Guided Missile Cruiser
CHASN	Charleston
CNO	Chief of Naval Operations
COMPTUEX/C2X	Composite Training Unit Exercise
CPF	Commander Pacific Fleet
CSG	Carrier Strike Group
CY	Calendar Year
CZMA	Coastal Zone Management Act
DDG	Guided Missile Destroyer
DEPSECDEF	Deputy Secretary of Defense
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
EL	Energy Flux Density Level
EO	Executive Order
ESA	Endangered Species Act
ESG	Expeditionary Strike Group
FFG	Fast Frigate
FY	Fiscal Year
HASC	House Committee on Armed Services
HRC	Hawaiian Islands Range Complex
IEER	Improved Extended Echo Ranging
IHA	Incidental Harassment Authorization
ITS	Incidental Take Statement
JAX	Jacksonville
JTFEX	Joint Task Force Exercise
LOA	Letter of Authorization
MFAS	Mid-Frequency Active Sonar
MIRC	Mariana Islands Range Complex
MIW	Mine Warfare
MMPA	Marine Mammal Protection Act
NAVSEA	Naval Sea Systems Command
Navy	Department of the Navy
NDAA	National Defense Authorization Act
NDE	National Defense Exemption
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRDC	Natural Resources Defense Council
OPAREAS	Operating Areas
OPFOR	Opposition Force
OPORDER	Operational Order
Ops	Operations
PL	Public Law
PTS	Permanent Threshold Shift
RDT&E	Research, Development, Testing, and Evaluation
RIMPAC	Rim of the Pacific
SCC	Submarine Command Course
SEASWITI	South Eastern ASW Integrated Training Initiative
SECNAV	Secretary of the Navy
SOCAL	Southern California
SOE	Schedule of Events
ULT	Unit Level Training
U.S.	United States
USFF	United States Fleet Forces
USWEX	Undersea Warfare Exercises
VACAPES	Virginia Capes
VS 07	Valiant Shield 2007

1.0 INTRODUCTION

1.1 Report Requirement

This report is submitted in response to a House Committee on Armed Services (HASC) requirement contained in the HASC Committee Report 110-146, page 299.

Excerpt from the HASC Committee Report: "Until such time as the Navy achieves full compliance with the [Marine Mammal Protection Act] (MMPA), the committee directs the Secretary of the Navy to document those specific activities undertaken under the authority of the National Defense Exemption. Further, the committee directs the Secretary of the Navy to submit a report on those activities to the Senate Committee on Armed Services and the House Committee on Armed Services by February 1, 2008. In addition, the committee encourages the Department to submit a report by February 1 of each subsequent year for as long as the exemption is in effect. The report shall include an assessment of the increase in military readiness, the estimated number and species of marine mammals injured and killed as a result of those activities undertaken under the authority of the exemption, and an estimate of the population level effect, if any, on these species. Additionally, the report should provide an update on activities undertaken by the Navy to achieve full compliance with the MMPA."

1.2 National Defense Exemption (NDE) Background

The National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2004 (Public Law (PL) 108-136) amended the MMPA to include a provision whereby the Secretary of Defense, after conferring with the Secretary of Commerce, may exempt any action or category of actions undertaken by the Department of Defense (DoD) or its components from any requirements of the Act should it be necessary for national defense. Based upon a determination that continued training with mid frequency active sonar (MFAS) is vital to the Navy's Anti-Submarine Warfare (ASW) training program and, therefore, key to ensuring national defense, the Deputy Secretary of Defense (DEPSECDEF) exercised this authority. On January 23, 2007, DEPSECDEF issued a two-year NDE (Appendix A) to exempt all military readiness activities that employ MFAS (operating within the frequency range of 1kHz to 10 kHz) or Improved Extended Echo Ranging (IEER) Sonobuoys used either during major training exercises or within established DoD maritime ranges or established operations areas from compliance with the permitting requirements of the MMPA. This exemption expires January 23, 2009.

The NDE requires the Navy to employ 29 specific mitigation measures developed with, and fully supported by, the National Marine Fisheries Service (NMFS) for MFAS activities occurring during major exercises or on DoD ranges. These measures afford significant protection to marine mammals while enabling the Navy to train with MFAS. Because IEER is a new sensor system under development and nearing deployment, the DoD will develop with NMFS mutually agreeable mitigation measures applicable to IEER before using IEER for training if that use occurs under the period of the NDE.

The NDE enables the Navy to employ MFAS in a manner that maintains testing and training fidelity while providing significant protection to marine mammals. By enabling critical MFAS and IEER testing and training to continue in an environmentally sound manner protective of marine mammals, the NDE serves as a bridge to future compliance with the authorization requirements of the MMPA.

FOR OFFICIAL USE ONLY

1.3 Mitigation Measures during the NDE Period

The NDE requires implementation of mitigation measures when using MFAS (Appendix A). To implement the NDE and ensure that these mitigation measures were carried out, the Navy took the following actions to broadly disseminate the measures and ensure their implementation:

- The Chief of Naval Operations (CNO) issued a naval message on February 22, 2007, directing all Navy commands and operating units to utilize these mitigation measures. The message included the mitigation measures themselves and background information regarding the NDE. Naval messages are operating orders; their directives must be carried out by all addressees. This message was reiterated by the Echelon II commands, U.S. Fleet Forces (USFF), Commander Pacific Fleet (CPF), and Naval Sea Systems Command (NAVSEA), to their subordinate commands by naval message or Letters of Instruction.
- The NDE measures were incorporated into the standard training materials used by shipboard personnel.
- The NDE measures are reinforced prior to each major exercise through the issuance of mitigation measure messages and Letters of Instruction. As previously stated, these are operating orders and must be carried out by all addressees.

2.0 ACTIVITIES TAKEN UNDER THE AUTHORITY OF THE NDE

For purposes of this report, actions conducted under the authority of the NDE are presented in three categories: (1) those MFAS activities undertaken on DoD established maritime ranges or designated Operating Areas (OPAREAS), (2) MFAS activities during major training exercises regardless of location, and (3) activities associated with IEER Sonobuoy.

2.1 Activities Undertaken within Established DoD Maritime Ranges or Established OPAREAs

While myriad testing and training activities occur within the Navy's established ranges and OPAREAs, the following describes only those activities associated with the use of MFAS covered by the NDE.

2.1.1 Unit Level Training Activities

Unit level training (ULT) activities encompass training that each individual unit (vessel, aircraft, or submarine) conducts. ULT is a building block, or foundation, during which a unit's Commanding Officer trains his/her unit to develop and maintain basic skills in preparation for advanced training.

The majority of ULT activities involving active sonar components are conducted to meet Mine Warfare (MIW) and ASW training requirements. Some guided missile destroyers (DDGs), Aegis guided missile cruisers (CGs), fast frigates (FFGs), and submarines can operate their hull-mounted sonar, normally used for ASW, in an object detection mode. This mode allows ships to detect mines and other objects in the water as well as to navigate through the area. MIW ULT activities focus on training sonar operators to detect, locate, and characterize mine-like objects under various environmental conditions, including those suspended in the water (i.e., moored mines), mines on the ocean floor (i.e., proud mines), and mines buried under the ocean floor. ASW ULT activities focus on training sonar operators on the detection, classification, and tracking of underwater targets. Activities include both near-shore and open-ocean ASW training activities.

2.1.2 Coordinated Unit Level Training Activities

Coordinated ULT activities involved one or more units and concentrate on training warfare teams during initial multi-unit operations. During this phase, vessels and aircraft begin to coordinate warfare skills with other units while continuing to maintain individual unit proficiency. South Eastern ASW Integrated Training Initiative (SEASWITI) and specialty training operations (Ops) such as Submarine Command Course (SCC) Ops are examples of coordinated ULT.

2.1.3 Major Training Exercises

Strike Group training activities continue to develop and refine integrated strike group warfare skills and command and control procedures. The objective of this phase is to ensure that all units in the strike group are prepared to support the group commander's specific mission requirements. Strike Group training activities include exercises such as Composite Training Unit Exercises (COMPTUEXs), Joint Task Force Exercises (JTFEXs), and Undersea Warfare Training Exercises (USWEXs). These training exercises provide realistic training opportunities in a battlefield environment that mimics challenges strike groups could face during deployment. Some of these exercises do not occur entirely within a designated DoD maritime range or designated operating area, yet they are considered a major training exercise. Additional information regarding this category of exercises is provided in Section 2.2.

2.1.4 Research Development Testing & Evaluation (RDT&E)

RDT&E activities associated with ASW and MIW systems are typically conducted to ensure that the ASW and MIW active sonar function properly and meet the operational requirements set forth in the test plan. The sensors tested in conjunction with RDT&E activities are either existing systems or new systems with similar operating parameters. Approximately 64 RDT&E events were undertaken on established DoD Ranges or OPAREAS under the provisions of the NDE during CY 2007.

2.1.5 Active Sonar Maintenance

Active sonar maintenance includes both pier-side and at-sea activities. These activities are required before deployment, after major sonar array maintenance, and when the systems are suspected of not operating at optimal levels.

2.2 Major Training Exercises Conducted Under the NDE

There were 12 major training exercises, as described in section 2.1.3., conducted under the NDE during CY 2007 (Table 1). These included three USWEXs performed in the Hawaiian Islands Range Complex (HRC); two JTFEXs performed in Southern California (SOCAL) OPAREA; five COMPTUEXs – two performed on the East Coast and three performed in SOCAL OPAREA; one combined JTFEX/COMPTUEX performed on the East Coast; and one Valiant Shield (VS) performed near the Mariana Islands. For each of these major exercises appropriate environmental planning documentation was prepared under the National Environmental Policy Act (NEPA) and/or Executive Order (EO) 12114. In addition, where applicable, each of these exercises completed a Section 7 consultation under the Endangered Species Act (ESA).

The major training exercises are conducted by Carrier Strike Groups (CSG) and Expeditionary Strike Groups (ESG). A Carrier Strike Group (CSG) generally consists of six units: an aircraft carrier and five surface combatants (cruisers, destroyers, and frigates). Training workups for deployment include exercising with one or more attack submarines and a combined ammunition, oiler, and supply ship. An Expeditionary Strike Group (ESG) consists of an amphibious ready group (amphibious assault ship, transport dock ship, dock landing ship, and various Marine units) in addition to surface combatants, such as those in a CSG. CSGs and ESGs both conduct COMPTUEX in preparation for deployment.

Type of Exercise	# of Exercises	Location
COMPTUEX	2	East Coast (Cherry Point/Virginia Capes (VACAPES)/Jacksonville (JAX)/Charleston (CHASN) OPAREAs
COMPTUEX	3	SOCAL OPAREA
JTFEX	2	SOCAL OPAREA
JTFEX/COMPTUEX	1	East Coast (Cherry Point/JAX/CHASN OPAREA)
USWEX	3	HRC
Valiant Shield	1	Mariana Islands Range Complex (MIRC)

Table 1 – Major Exercises using MFAS by Type and Location

2.2.1 COMPTUEXs

COMPTUEX is the first opportunity for a strike group to practice coordinated, integrated skills in a complicated threat-based scenario environment simulating real-world situations. Each COMPTUEX lasts approximately 3 to 4 weeks. A critical portion of COMPTUEX is the strike group demonstrating the ability to execute ASW since history has consistently proven that the enemy's strategy with submarines is to interdict its opposition before it can affect the fight. The active sonar training portion of a COMPTUEX consists of approximately 10 days. MFAS employed in this scenario include helicopter dipping sonar, sonobuoys, and hull-mounted ship sonar; however, not all surface ships are equipped with hull-mounted sonar.

2.2.2 JTFEXs

JTFEX is an advanced, free-play, scenario-driven exercise that requires adaptive mission planning by naval forces and operational staffs and often includes other Department of Defense (DoD) services and/or Allied Forces. JTFEX follows COMPTUEX and validates the attainment of integrated skills in more complicated conditions and scenarios. CSGs and ESGs both conduct JTFEX in preparation for deployment. JTFEX serves as a venue for Fleet Commanders to assess the readiness, interoperability, and proficiency of naval forces in realistic free-play scenarios spanning the spectrum of armed conflict. At the conclusion of JTFEX, the Fleet Commander certifies the strike group's readiness to deploy.

Each JTFEX usually lasts less than two weeks. Like COMPTUEX, a critical portion of JTFEX and certification for deployment is the strike group's ability to effectively execute ASW. The active sonar training portion of a JTFEX consists of approximately 7 days. MFAS employed in this scenario is of the same type as that employed in COMPTUEX.

2.2.3 USWEXs

A USWEX is an assessment-based ASW exercise conducted by the CSG or ESG while in transit from the west coast of the United States to the Western Pacific Ocean. Along with the assessment goal, there is significant training value in USWEX, as training is inherent in all at-sea exercises. Training may be considered a subset of the USWEX efforts designed to assess our ability to conduct ASW in the most realistic environment, against the level of threat expected in order to effect changes to both training and capabilities, (e.g., equipment, tactics, and changes to size and composition of the Strike Groups and manning). While other training exercises occur during the remainder of the deployment, USWEXs are conducted shortly after deployment to ensure the Strike Groups are fully capable of conducting strike warfare while defending themselves against submarines.

All USWEX activities conducted during the NDE period were within the HRC, which encompasses offshore, near shore, and onshore areas located on or around the major islands of the Hawaiian Island chain. ASW training conducted during a USWEX utilizes ships, submarines, aircraft, non-explosive exercise weapons, and other training systems and devices. During an ESG USWEX, amphibious forces would utilize the beaches at Pacific Missile Range Facility or at Marine Corps Training Area Bellows to conduct amphibious landings.

2.2.4 Exercise Valiant Shield 07

Valiant Shield (VS 07) consisted of a Joint multi-strike group scenario that required three CSG strike groups to demonstrate the Navy's ability to operate in an environment designed to replicate the types of challenges that could be faced during real word events. Valiant Shield involved Navy assets engaging in a schedule of events (SOE) battle scenario, with United States forces pitted against a notional opposition force (OPFOR). Participants used and built upon previously gained training skill sets to maintain and improve the proficiency needed for a mission-capable, deployment-ready Strike Group.

Three CSGs participated in VS 07. The exercise area was located in the western Pacific Ocean within and near the Mariana Islands Range Complex (MIRC) and included the airspace and sea space in and around the MIRC.

2.3 Activities Relating to the IEER Sonobuoy

The IEER sonobuoy has not yet been placed into service. Therefore, with respect to IEER, the NDE was not used during CY 2007. The Navy and NMFS continue to examine the marine mammal mitigation measures for this system. Those mitigation measures will be implemented if IEER sonobuoys are employed during the NDE period.

3.0 MILITARY READINESS ASSESSMENT

3.1 The Navy's Statutory Mission – Maintain Military Readiness

Section 5062 of Title 10 of the U.S. Code mandates that the Navy be organized, trained, and equipped for combat.

3.2 Readiness through Training

The key to combat effectiveness is realistic training in the air, on land, on and under the sea – the single greatest tool the military has in preparing and protecting our naval forces. "Train As We Fight" is not just a phrase - it is a statement of the absolute necessity to realistically train our naval forces for the conditions in which they may find themselves while protecting the nation. Training "as we intend to fight" means realistic exercises which replicate the stress, discomfort, and physical conditions of combat. A realistic training program is the best means, short of combat, of preparing our forces and generating confidence in, and knowledge of, our plans, tactics, and procedures. Large-scale training exercises, including exercises at sea, involve all elements of naval forces and connect people to their missions before they are actually employed. The Navy trains as if full-scale armed conflict were imminent. Whether conducting training or combat, the same organizational structure, procedures, command and control, equipment, and thinking apply. Since the Navy fights as a component and fights as a member of a joint or combined team, Navy must train as joint and combined teams to ensure development of maritime component core competences.

The Navy's at-sea training range complexes and operating areas are where the learning takes place, the warfighting skills are honed, the "first encounters" are realistically re-created, and mistakes are made without lethal results. The Navy relies on the full use of at-sea range complexes and operating areas to provide the combat-like experience that gives our forces a competitive advantage in war. These complexes and areas, individually and collectively, provide land, sea, undersea, and airspace where naval forces can train as they will fight, while providing the ability to test and evaluate future capabilities.

No amount of technology, hardware, or classroom education can achieve the required level of combat readiness without access to quality range complexes and operating areas that afford our naval forces the realistic training needed to execute their missions. Simulation and models can help, but they are no substitute for training and operating in the environment operations will occur.

3.2.1 Training with Sonar

ASW proficiency requires constant attention. While our long-term compliance documents are being developed, we cannot stop training. The inability to train and maintain strike group ASW capability to succeed at the highest level possible would present an overwhelming national security concern, as the failure to do so could result in significant adverse results in combat, including the loss of ships and life. Our Sailors and Marines must receive the training they need to fight and win. The key to maintaining the Navy's ability to defend against adversary submarines is the comprehensive "at-sea" training regime, especially the use of active sonar.

Modern diesel electric submarines utilize quieting technologies, take advantage of the shallow water littoral environment to defeat passive sonar, and are armed with anti-ship weapons of increasing range and lethality. MFAS has been used for decades as the most effective tool for locating and tracking these submarines at distances that preclude them from effectively attacking ships. Without MFAS, Navy ships are vulnerable to enemy modern, quiet submarines. Training with MFAS is, therefore, critical to national security.

To effectively detect, track, and neutralize an adversary's submarines, our air, surface and submarine assets must work seamlessly together to share and exploit limited location and intelligence data. Unit level ASW training only addresses internal unit skills and does not exercise and integrate other air, surface, and undersea combat assets. Each of these combat assets must train and work together with a broad array of tools, including MFAS, to effectively locate and neutralize the adversary.

ASW is the linchpin of sea control. With the proliferation of modern, quiet submarines, the ASW challenge has become more significant. To counter adversarial submarine challenges, the Navy's only course of action is to conduct extensive integrated training including the use of active sonar that mirrors the intricate operating environment that would be present in hostile waters.

3.3 The NDE and Military Readiness

The NDE has not increased the Navy's readiness; rather, the NDE merely removed one statutory basis upon which the Navy can be challenged regarding environmental compliance while it prepares its range Environmental Impact Statements (EISs). Prior to the NDE, legal claims under MMPA resulted in restrictions on the Navy's ability to train effectively, as evidenced in Rim of the Pacific (RIMPAC) 2006 wherein the Navy was restricted from training with active sonar for three days due to a temporary restraining order. The training was compromised, with future training in jeopardy without the exemption.

While the NDE has met the Navy's needs with respect to compliance with MMPA, the Navy continues to face several challenges in fulfilling its statutory mandate to organize, train, and equip naval forces for combat due to other environmental laws (i.e., ESA, NEPA, and the Coastal Zone Management Act (CZMA)). The Navy is currently defending against four separate lawsuits

involving MFAS with respect to these environmental laws. While a discussion of how an agency will comply with substantive statutes is appropriately addressed under NEPA, the analysis required under NEPA does not serve to establish substantive requirements or supplant the substantive statute intended by Congress to serve as the regulatory regime for a particular resource such as marine mammals. Nonetheless, these lawsuits seek to impose additional mitigation related to the protection of marine mammals that will significantly adversely impact military readiness. For example, in NRDC v. Winter, a matter in current litigation concerning the Navy's use of MFAS during vital certification exercises occurring in the Navy's SOCAL operating area, the trial court originally issued an injunction based upon a preliminary determination that the Navy was not in compliance with the CZMA and NEPA.

4.0 ESTIMATED NUMBER AND SPECIES OF MARINE MAMMALS KILLED OR INJURED

This portion of the report contains the estimated number of marine mammals and species that were killed or injured as a result of the Navy conducting activities under the NDE presented in Section 2.0. The analysis of potential effects contained in the Navy's environmental planning documentation predicted the use of MFAS would result in no deaths or injuries of an individual or group of marine mammals. Additionally, in its Biological Opinions (BOs) issued under the ESA for the major training exercises conducted under the NDE, NMFS determined that the use of MFAS covered by the NDE was not likely to kill or injure threatened or endangered marine mammals.

The Navy determines whether a marine mammal has been injured from exposure to acoustic energy if the marine mammal has experienced a physiological effect. Permanent threshold shift (PTS) is the non-recoverable destruction of tissues within the auditory system and is used as the criteria for physiological effects. The smallest amount of PTS (onset-PTS) is taken to be the indicator for the smallest degree of injury that can be measured. Marine mammals predicted to receive a sound exposure with energy flux density level (EL) of 215 dB re 1 µPa2-s or greater are assumed to experience PTS. Generally, acoustic energy will propagate such that an EL greater than 215 dB re 1 μPa^2-s will not occur at a distance greater than 10 m from the MFAS source. Thus, if a marine mammal is sighted within 10 m of the transmitting vessel, we can assume that the marine mammal has experienced PTS, and thus has been injured.[1]

The Navy's after action reporting system requires units participating in major exercises to report the number of marine mammals that were sighted during the conduct of the exercise. Participating ships, submarines, and aircraft are required to report the date, time, distance from unit, and action taken by the unit, if any. Based on these After Action Reports (AARs), no marine mammal was sighted within 10 meters of any transmitting vessel during these exercises (Table 2). Additionally, these AARs contain no evidence that marine mammals were killed or injured during these exercises. Therefore, the Navy concludes that no marine mammals were injured or killed as a result of the conduct of the activities under the NDE.

[1] This assumption does not apply to dolphins engaging in bow-riding behavior because they remain outside the propagation pattern of hull-mounted MFAS.

FOR OFFICIAL USE ONLY

Exercise	Mortality Predicted from Environmental Planning Document	Injury predicted from Environmental Planning Document (PTS >215 EL)[2]	Sightings within 10 meters (11 yards) of transmitting MFAS vessel
CPF ESG C2X 07-02	0	0	0
CPF CSG C2X 07-07	0	0	0
CPF CSG C2X 08-01	0	0	0
USFF ESG C2X 07-02	0	0	0
USFF Combined CSG C2X/JTFEX 07-01	0	0	0
USFF ESG C2X 08-1	0	0	AAR is not completed[3]
CPF CSG JTFEX 07-03	0	0	0
CPF ESG JTFEX 07-05	0	0	0
CPF ESG USWEX 07-03	0	0	0
CPF CSG USWEX 07-02	0	0	0
CPF USWEX 08-01	0	0	0
VS 07	0	0	0

Table 2 - Marine Mammal Exposure Estimates and Sightings From Major Training Exercises Conducted in 2007

5.0 POPULATION LEVEL EFFECTS

In its environmental planning analyses, the Navy concluded that no MFAS adverse effects on the annual rates of recruitment and survival of any marine mammal species or stock or population level impacts were expected.

No animals were sighted within the range of injury (10 meters) while MFAS was employed. Marine mammals sighted at distances greater 10 m were monitored to ensure that they did not enter the range of injury. The AARs contained no evidence of injury or death to marine mammals as a result of MFAS usage. The Navy acknowledges that it is not possible to account for animals not observed; however, the low number of marine mammal sightings qualitatively indicate a lower density of marine mammals than used for predictive analysis, which further reduces the likelihood of a population level effect.

---

[2] Based on the modeling, eight Common Dolphins would be exposed to the PTS threshold of 215 dB re 1 μPa2-s for the JTFEX/COMPTUEX in SOCAL. However, no serious injury or mortality of any marine mammal species is reasonably foreseeable as mitigation measures were expected to be effective in reducing the potential for injury.

[3] AARs are due within 120 days of the completion of the exercise, which had not passed at the time of drafting this report.

5.1.1 Summary of NMFS' Population Level Effects Findings for Navy MFAS Actions

Per Section 7 of the ESA, the Navy consulted with NMFS for those major exercises in which the Navy determined that there may be effects to ESA listed species from the exposure of MFAS. This includes all USWEXs conducted in the HRC, all COMPTUEXs and JTFEXs conducted in the SOCAL OPAREA, the Combined CSG COMPTUEX/JTFEX conducted on the East Coast, and VS 07. For each of the BOs received (total of 4 covering 10 exercises)[4], NMFS concluded that exposure to MFAS would not have fitness consequences to an individual ESA-listed species, therefore there would not be any population level effects. This assessment from NMFS resulted in a "no jeopardy" opinion for each of the 4 BOs.

6.0 MMPA COMPLIANCE PROGRESS AND UPDATE FOR 2007

6.1 Background

The Navy's compliance strategy is described in two primary documents: the Secretary of the Navy's (SECNAV) Compliance with Environmental Requirements in the Conduct of Naval Exercises or Training at Sea ("At Sea Policy"), dated December 28, 2000, and the CNO Mid-Frequency Active Sonar Effects Analysis Interim Policy, dated March 6, 2006 ("Sonar Policy"). The "At Sea Policy" stipulates the Navy's requirements for environmental planning documentation for the conduct of exercises and training at sea. It further states that the Navy will prepare environmental planning documents required by NEPA, CZMA, and EO 12114; initiate consultations with regulatory agencies under ESA; and apply for Incidental Take Statements (ITSs) under the ESA or similar permission under the MMPA. The CNO "Sonar Policy" established criteria and thresholds by which the Navy will conduct its effects analyses. It further established the milestones the Navy will complete all environmental compliance documentation.

For all major ranges and OPAREAS, the Navy's strategy is to produce EISs, prepared under NEPA, to consult under the ESA, and to seek authorization from NMFS for MMPA compliance. In 2005, the Navy exchanged letters with NMFS regarding Navy's long-term strategy towards environmental compliance.

In 2006, the CNO, through his "Sonar Policy" directed the Navy to seek appropriate regulatory authorizations under MMPA and consultation under ESA, if required, for all major training exercises using MFAS. This policy required all exercises commencing after January 1, 2007, to have the appropriate environmental planning and regulatory compliance in place. Per this policy and strategy, in August 2006, the Navy submitted two requests for Incidental Harassment Authorization (IHA) under the MMPA and associated requests for consultation and Environmental Assessments (EAs). One was for the conduct of USWEXs in the HRC over a two-year period of time, and the other was to conduct JTFEX/COMPTUEX exercises in the SOCAL Range Complex over a two-year period of time.

In its letter dated October 5, 2006, NMFS informed the Navy that they would not be able to conclude with a degree of certainty that mitigation measures would eliminate or reduce the potential for serious injury to or mortality of certain species of marine mammals; therefore IHAs could not be utilized to meet the Navy's MMPA compliance requirements. NMFS stated that the Navy should seek authorization through the utilization of a Letter of Authorization (LOA). In addition, NMFS recommended that the Navy prepare EISs, vice EAs, under NEPA to support these LOA requests. Because the time required for preparing and completing an EIS and an LOA for an individual or group of exercises exceeds the time it takes to plan an exercise, the use of the EIS/LOA process is not possible for a single exercise or group of exercises. Therefore, the

[4] Two exercises did not require consultation under the ESA.

Navy adopted an approach by which resources would be concentrated on completing the comprehensive EISs for its major training activities.

To meet the milestones required to complete a LOA (approximately 18 months) and an EIS (approximately 2 years), it was necessary for the Navy to be exempted from the permitting requirements of the MMPA while performing the regulatory and environmental planning procedures. The Navy is using the NDE to comply with the MMPA while LOAs are being obtained and appropriate supporting NEPA documents are being prepared. NMFS concurred with this approach and worked with Navy to develop a list of 29 mitigation measures for the NDE (Appendix A) to reduce the likelihood of adverse consequences to marine mammals during this two-year period of time.

6.2 Navy Range EIS Status

Per the strategy above, the Navy is preparing 11 EISs: Atlantic Fleet Active Sonar Training (AFAST), HRC, SOCAL, Virginia Capes (VACAPES) Range Complex, Cherry Point Range Complex, Charleston/Jacksonville Range Complex, Northwest Range Complex, MIRC, Gulf of Mexico Range Complex, NAVSEA Keyport Range Complex, and Naval Surface Warfare Center Panama City.

Navy published Notices of Intent to initiate the NEPA process for all 11 EISs covering ranges and OPAREAS. Three of these EISs will cover approximately 75% of the Navy's use of MFAS during training activities (HRC, SOCAL, and AFAST). NMFS and Navy have been actively working through the NEPA and MMPA processes for all of these EISs. For example, the Draft HRC EIS was released to the public and the Navy is currently incorporating comments received from the public. Additionally, Navy submitted an LOA to NMFS and NMFS has published a notice of receipt in the Federal Register. An LOA will be obtained for the three documents analyzing the majority of sonar use (HRC, SOCAL, AFAST) by January 2009, prior to the expiration of the NDE.

7.0 SUMMARY

Over CY 2007, the Navy used MFAS in various testing, unit level training activities, and major training exercises within established ranges and OPAREAS. The use of MFAS did not kill or injure any marine mammals. The potential for population level effect to any marine mammal species or stock is negligible.

While military readiness has not increased under the NDE, one statutory basis upon which the Navy can be challenged regarding environmental compliance has been removed. Prior to the NDE, legal claims under MMPA resulted in restrictions on the Navy's ability to effectively train. Such restrictions jeopardize training and threaten to impact military readiness and national security. Without the current NDE, the Navy would be unauthorized to execute the training required and vital to the national security of the United States.

The NDE has been a critical, essential bridge to compliance with the MMPA. The Navy remains committed to working closely with NMFS through the NEPA and MMPA processes toward completion of Navy's 11 range and OPAREA EISs.

Appendix A – National Defense Exemption

DEPUTY SECRETARY OF DEFENSE

1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

JAN 23 2007

MEMORANDUM FOR SECRETARY OF THE NAVY

SUBJECT: National Defense Exemption from Requirements of the Marine Mammal Protection Act for Certain DoD Military Readiness Activities That Employ Mid-Frequency Active Sonar or Improved Extended Echo Ranging Sonobuoys

Pursuant to Title 16, Section 1371(f), of the United States Code, and having conferred with the Secretary of Commerce, I have determined that it is necessary for the national defense to exempt all military readiness activities that employ mid-frequency active sonar or Improved Extended Echo Ranging sonobuoys (IEER), either during major training exercises, or within established Department of Defense maritime ranges or established operating areas, from compliance with the requirements of the Marine Mammal Protection Act, Title 16, Sections 1361 – 1421h, of the United States Code. For purposes of this exemption, mid-frequency active sonar is defined as those active sonar systems operating within the frequency range of 1 kHz to 10 kHz. IEER is a new sensor system that is finishing development and nearing deployment. A military readiness activity is defined in Section 315(f) of Public Law 107-314.

Specific actions falling within these categories of actions are exempted for a period of two years from today's date, or the date at which the Department of Navy is granted authorization under the Marine Mammal Protection Act for one or both of these categories of actions as associated with a specific proposed activity, whichever is earliest. In the event the exemption terminates as to a specific proposed activity having been granted authorization under the Marine Mammal Protection Act for one or both of these categories of actions, the exemption shall remain in full force and effect as to all other exempted categories of actions.

During the exemption period, the Department of the Navy will execute the plan coordinated with the Department of Commerce to come into full compliance with the requirements of the Marine Mammal Protection Act. During this exemption period, all exempted military readiness activities employing mid-frequency active sonar shall follow the attached "Mid-Frequency Active Sonar (MFAS) Mitigation Measures during Major Training Exercises or within Established DoD Maritime Ranges and Established Operating Areas." Before using IEER for training, the Department of the Navy will develop with the National Marine Fisheries Service mutually agreeable mitigation measures applicable to IEER as information evolves on its use and tactics.

FOR OFFICIAL USE ONLY

Attachment:
Mid-Frequency Active Sonar (MFAS) Mitigation Measures during Major Training Exercises or within Established DoD Maritime Ranges and Established Operating Areas

FOR OFFICIAL USE ONLY

Mid-Frequency Active Sonar Mitigation Measures during Major Training Exercises or within Established DoD Maritime Ranges and Established Operating Areas

I. General Maritime Protective Measures: Personnel Training:

1. All lookouts onboard platforms involved in ASW training events will review the NMFS-approved Marine Species Awareness Training (MSAT) material prior to use of mid-frequency active sonar (MFA).

2. All Commanding Officers, Executive Officers, and officers standing watch on the bridge will have reviewed the MSAT material prior to a training event employing the use of MFA.

3. Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (NAVEDTRA 12968-B).

4. Lookout training will include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not preclude personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

5. Lookouts will be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

II. General Maritime Protective Measures: Lookout and Watchstander Responsibilities:

6. On the bridge of surface ships, there will always be at least three people on watch whose duties include observing the water surface around the vessel.

7. In addition to the three personnel on watch noted previously, all surface ships participating in ASW exercises will, have at all times during the exercise at least two additional personnel on watch as lookouts.

8. Personnel on lookout and officers on watch on the bridge will have at least one set of binoculars available for each person to aid in the detection of marine mammals.

9. On surface vessels equipped with MFA, pedestal-mounted "Big Eye" (20x110) binoculars will be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

10. Personnel on lookout will employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-B).

11. After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

12. Personnel on lookout will be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

III. Operating Procedures

13. A Letter of Instruction, Mitigation Measures Message, or Environmental Annex to the Operational Order will be issued prior to the exercise to disseminate further the personnel training requirement and general marine mammal protective measures.

14. Commanding Officers will make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

15. All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) will monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

16. During MFA operations, personnel will utilize all available sensor and optical systems (such as Night Vision Goggles to aid in the detection of marine mammals.

17. Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

18. Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yards of the sonobuoy.

19. Marine mammal detections will be immediately reported to the assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate when it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

20. Safety Zones - When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) within 1,000 yards of the sonar dome (the bow), the ship or submarine will limit active transmission levels to at least 6 dB below normal operating levels.

    (i) Ships and submarines will continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards beyond the location of the last detection.

    (ii) Should a marine mammal be detected within or closing to inside 500 yards of the sonar dome, active sonar transmissions will be limited to at least 10 dB below the equipment's normal operating level. Ships and submarines will continue to limit maximum ping levels by this 10-

FOR OFFICIAL USE ONLY

dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards beyond the location of the last detection.

(iii) Should the marine mammal be detected within or closing to inside 200 yards of the sonar dome, active sonar transmissions will cease. Sonar will not resume until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards beyond the location of the last detection.

(iv) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the Officer of the Deck concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(v) If the need for power-down should arise as detailed in "Safety Zones" above, the ship or submarine shall follow the requirements as though they were operating at 235 dB - the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 sonar was being operated).

21. Prior to start-up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

22. Sonar levels (generally) – The ship or submarine will operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

23. Helicopters shall observe/survey the vicinity of an ASW exercise for 10 minutes before the first deployment of active (dipping) sonar in the water.

24. Helicopters shall not dip their sonar within 200 yards of a marine mammal and shall cease pinging if a marine mammal closes within 200 yards after pinging has begun.

25. Submarine sonar operators will review detection indicators of close-aboard marine mammals prior to the commencement of ASW operations involving active mid-frequency sonar.

26. Increased vigilance during major ASW training exercises with tactical active sonar when critical conditions are present:

Based on lessons learned from strandings in the Bahamas (2000), the Madeiras (2000), the Canaries (2002) and Spain (2006), beached whales are of particular concern since they have been associated with MFA operations. Navy should avoid planning major ASW training exercises with MFA in areas where they will encounter conditions that, in their aggregate, may contribute to a marine mammal stranding event.

The conditions to be considered during exercise planning include:

(1) Areas of at least 1,000 m depth near a shoreline where there is a rapid change in bathymetry on the order of 1,000-6,000 meters occurring across a relatively short horizontal distance (e.g., 5 nm).

FOR OFFICIAL USE ONLY

(2) Cases for which multiple ships or submarines (≥ 3) operating MFA in the same area over extended periods of time (≥ 6 hours) in close proximity (≤ 10 nm apart).

(3) An area surrounded by land masses, separated by less than 35 nm and at least 10 nm in length, or an embayment, wherein operations involving multiple ships/subs (≥ 3) employing MFA near land may produce sound directed toward the channel or embayment that may cut off the lines of egress for marine mammals.

(4) Although not as dominant a condition as bathymetric features, the historical presence of a significant surface duct (i.e., a mixed layer of constant water temperature extending from the sea surface to 100 or more feet).

If the major exercise must occur in an area where the above conditions exist in their aggregate, these conditions must be fully analyzed in environmental planning documentation. Navy will increase vigilance by undertaking the following additional protective measure:
A dedicated aircraft (Navy asset or contracted aircraft) will undertake reconnaissance of the embayment or channel ahead of the exercise participants to detect marine mammals that may be in the area exposed to active sonar. Where practical, advance survey should occur within about two hours prior to MFA use, and periodic surveillance should continue for the duration of the exercise. Any unusual conditions (e.g., presence of sensitive species, groups of species milling out of habitat, any stranded animals) shall be reported to the Officer in Tactical Command (OTC), who should give consideration to delaying, suspending or altering the exercise.

All Safety Zone requirements described in Measure 20 apply.

The post-exercise report must include specific reference to any event conducted in areas where the above conditions exist, with exact location and time/duration of the event, and noting results of surveys conducted.

IV. Coordination and Reporting

27. Navy will coordinate with the local NMFS Stranding Coordinator regarding any unusual marine mammal behavior and any stranding, beached live/dead, or floating marine mammals that may occur at any time during or within 24 hours after completion of mid-frequency active sonar use associated with ASW training activities.

28. Navy will submit a report to the Office of Protected Resources, NMFS, within 120 days of the completion of a Major Exercise. This report must contain a discussion of the nature of the effects, if observed, based on both modeled results of real-time events and sightings of marine mammals.

29. If a stranding occurs during an ASW exercise, NMFS and Navy will coordinate to determine if MFA should be temporarily discontinued while the facts surrounding the stranding are collected.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the alternative acquisition strategies under consideration for the DDG-51 modernization program. Specifically, the enclosed report provides a program plan and acquisition strategy for the DDG-51 modernization program.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the alternative acquisition strategies under consideration for the DDG-51 modernization program. Specifically, the enclosed report provides a program plan and acquisition strategy for the DDG-51 modernization program.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the alternative acquisition strategies under consideration for the DDG-51 modernization program. Specifically, the enclosed report provides a program plan and acquisition strategy for the DDG-51 modernization program.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the alternative acquisition strategies under consideration for the DDG-51 modernization program. Specifically, the enclosed report provides a program plan and acquisition strategy for the DDG-51 modernization program.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

DDG-51 CLASS GUIDED MISSILE DESTROYERS MODERNIZATION PLAN

PREPARED BY

Naval Sea Systems Command
Surface Warfare Directorate (SEA 21)
Washington D.C. 20376

February 2008

TABLE OF CONTENTS

1. REPORT REQUIREMENTS

2. EXECUTIVE SUMMARY

3. PRIOR CONGRESSIONAL REPORTS

4. PROGRAM PLAN

5. ACQUISITION STRATEGY AND AVAILABILITY EXECUTION

6. CONCLUSION

1. REPORT REQUIREMENTS

The FY 2008 Senate Armed Services Committee Report 110-77 provides the following on page 131:

> "The Secretary of the Navy's fiscal year 2007 report to Congress on the long-range plan for construction of naval vessels identified the requirement to operate the 62-ship DDG-51 class for a 35-year service life in order to meet the Navy's surface combatant force structure requirements. The DDG-51 modernization program, which upgrades the DDG-51 class with key technologies for improved warfighting capability and reduced operating and support cost, is essential to achieving this 35-year expected service life. The Navy plans to accomplish the modernization at the approximate mid-life point for each ship, commencing with USS Arleigh Burke (DDG-51) in 2010. As currently programmed, the 62-ship modernization effort would span approximately 20 years at a cost in excess of $5.0 billion. The magnitude of this investment, coupled with the criticality of the modernization effort to surface combatant mission effectiveness, warrants a thorough understanding of how the Navy is balancing requirements for system performance, affordability, schedule, competition, quality of life, industrial base factors (including consideration of the Building Yards, other Private Yards, and the Navy Shipyards), risk, and other priorities in its procurement of the DDG-51 modernization program."

The Senate Armed Services Committee Report 110-77 directs "the Secretary of the Navy to submit a report to the congressional defense committees, with the fiscal year 2009 budget request, outlining the alternative acquisition strategies under consideration for the DDG-51 modernization program. The report shall address the specific factors identified above, the priorities assigned to these factors, and the methodology the Navy is using to optimize the DDG-51 modernization program in accordance with its established priorities."

2. EXECUTIVE SUMMARY

In response to Senate direction to submit a report with the FY 2009 budget request, the Secretary of the Navy has prepared this document in addition to previous Congressional Reports provided in 2004 and 2005. This report comprehensively reviews the methodology for procuring the Program.

NAVSEA supports America's Fleet of ships and combat systems. Within NAVSEA, the Surface Warfare Directorate, SEA 21, is the Navy's designated acquisition organization for the life cycle maintenance and modernization of surface combatants. As such, SEA 21 is responsible for the engineering, procurement and management of the DDG Modernization Program. The DDG Modernization Program was established by Chief of Naval Operations (CNO) direction in 2003 memo ("DDG 51 CLASS

MODERNIZATION PROGRAM" Ser N762/3U622901 dated January 17, 2003) with the following requirements:

- Increase War-fighting Capability,
- Leverage the DDG-51 shipbuilding program,
- Utilize Aegis Test Team lessons learned,
- Reduce Total Ownership Costs (TOC), and
- Adopt Open Architecture (OA) Upgrades

DDG Modernization is currently planned to be executed in two separate phases during CNO scheduled availabilities; Phase 1 consists of the HM&E upgrades, and Phase 2 consists of the Combat System upgrades to complete the Modernization package.

HM&E Upgrades include:

- Integrated Bridge System (IBS),
- Machinery Control System (MCS)/Damage Controls Systems (DCS),
- Gigabit Ethernet Data Multiplex System (GEDMS),
- Wireless Communications,
- Digital Video Surveillance System (DVSS),
- Quality of Life Upgrades,
- Advanced Galley, and
- Mission Life Extension Upgrades (including bow strengthening, digital compass and digital indicators).

Combat Systems Upgrades include:

- Land Attack and Naval Fires (MK 160 Mod X Gun Computing System, Tactical TOMAHAWK Weapon System),
- Battlespace Dominance (Open Architecture Computing Environment, Open Architecture Combat Information Center, Cooperative Engagement Capability (CEC), Multi-Mission BMD Capability, Multi-Mission Signal Processor (MMSP), Vertical Launching System (VLS) Modifications, Single Integrated Air Picture (SIAP), SM-6 Missile/Navy Integrated Fire Control-Counter-Air (NIFC-CA), Close In Weapon System (CIWS) Block 1B, AN/SQQ-89A(V)15 with Multi-Function Towed Array (MFTA)), and
- Command, Control, Communication, Computers and Intelligence (Integrated Shipboard Network System (ISNS) LAN Gigabit Ethernet , Global Command and Control System – Maritime, Identification Friend or Foe (IFF), Navigation Sensor System Interface (NAVSSI) Block 4, Tactical Data Link (TDL) Upgrade).

The Navy evaluated the following acquisition options for executing modernization availabilities based upon Affordability, Competition, Quality of Life, Industrial Base, and Risk:

- Sole source award to DDG Lead Shipbuilding Yard or a limited competition between DDG new construction builders,

- Full and open competition to sources local to the homeport using Multi-Ship-Multi-Option (MSMO) contracts (includes Private Repair Yards, Naval Shipyards, and Building Yard affiliates and partners), and
- Full and open coastwide competition (includes Private Repair Yards, Naval Shipyards, and Building Yards).

The Navy has analyzed these options and envisions that the DDG Modernization Program would be best executed within current statutory constraints and Navy homeport policy.

3. PRIOR CONGRESSIONAL REPORTS

This report was directed by FY 2008 Senate Armed Services Committee Report 110-77, and details the Program as presented in the FY 2009 President's Budget request. The Navy also submitted Reports to Congress on the DDG-51 Class Modernization Plan in response to requirements in FY 2004 Senate Armed Services Committee Report 108-46 and the FY 2005 Department of Defense Appropriations Conference Report 108-622, and Section 121 of the FY 2005 National Defense Authorization Act (Public Law 108-375).

The DDG Modernization Program as described in the 2004 and 2005 reports to Congress focused on leveraging the new construction shipyard capabilities to reduce risk and complete the design and testing of Hull, Mechanical, and Electrical (HM&E) alterations. The plan encompasses a set of core HM&E changes, using proven technologies with upgrades that result in a common control and monitoring system for the entire DDG-51 Class. The core changes, when implemented in a unified package, enable automation that reduces watchstander workload as well as associated maintenance and logistics. The reduced workload and the subsequent billets that can be eliminated will contribute to a significant reduction in TOC, estimated at $2.3B, across the entire 62 ship Class. A more detailed description of TOC reduction is addressed in Section 5 of this report. The plan also introduces commercial computing technology to the Aegis Weapon System processing and display equipment (as is being accomplished in the CG Modernization Program) for ships delivered before commercial computing technology was available. The commercial computing environment establishes a springboard for the addition of future warfighting capabilities, and is crucial to keeping the ships operationally relevant throughout their intended service life.

In addition to the above report requirements, the FY 2005 and 2006 Defense Appropriations Acts (Public Laws 108-287 and 109-148 respectively) each added $50 million in Ship Construction Navy (SCN) to accelerate a modernization program for the DDG-51 Class. In FY 2007, Congress appropriated an additional $30 million in Other Procurement, Navy (OPN) for DDG Modernization Program.

4. PROGRAM PLAN

The DDG Modernization Program installs modifications and equipment upgrades in the DDG-51 Class Destroyers to ensure enhanced warfighting capability and life cycle sustainability over the expected 35 years of service life. The goals of the DDG Modernization Program are to reduce the total ownership cost of the Class, primarily through reduction in crew size, and make significant enhancements to warfighting capability.

DDG Modernization is composed of a series of improvements in the HM&E Systems and Combat Systems areas. The improvements are installed respectively in two phases. The HM&E phase of the program will be comprised of the technologies transitioned from the forward-fit effort on DDG 111/112, and those additional improvements required to support the expected service life of the DDG-51 Class. The centerpiece of the Combat System phase will be the Aegis Weapon System (AWS) upgrade and the introduction of an integrated Ballistic Missile Defense (BMD) capability providing the ability to conduct an Anti-Air Warfare (AAW) and ballistic missile engagement simultaneously.

The preliminary planning processes for HM&E upgrades have already commenced in order to implement the DDG Modernization design into two FY 2005 new construction DDGs (DDG 111-112). The initial System Requirements Review (SRR) of the DDG Modernization requirements occurred in September 2004, the Preliminary Design Review (PDR) in June 2005, followed by a Critical Design Review (CDR) in February 2006. This schedule allows the prototype system to be received from vendors, assembled, integrated and land based tested at the Naval Surface Warfare Center Carderock Division's Ship System Engineering Station (NSWC-SSES) prior to installation aboard DDG 111. The final two ships of the DDG-51 Class will be delivered with the new modernized HM&E production configuration.

The first DDG Modernization back-fit availability will be executed in FY 2010 as DDG 111 is delivered. This is scheduled to occur on DDG 51 and is shown in Figure 1.

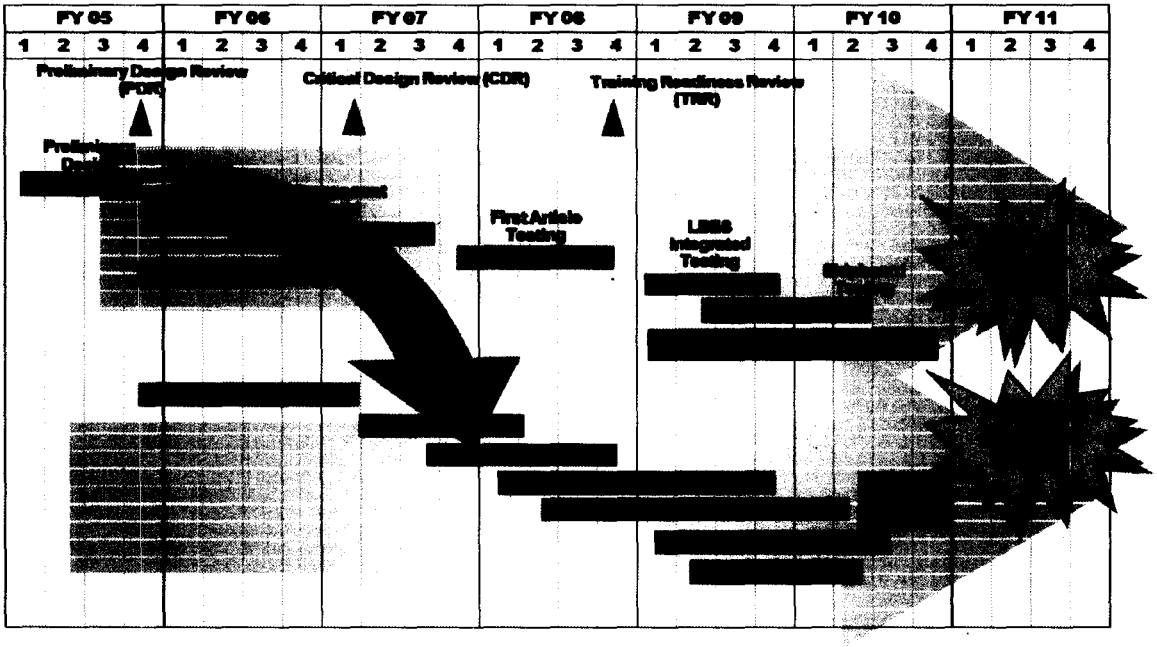


Figure 1 - DDG Modernization Schedule

4.1 Back-fit Implementation

The program plan, designed to modernize the oldest ships first, provides a comprehensive strategy to keep each ship relevant and affordable through their entire 35-year hull life. Ensuring mission relevance throughout the ships expected service life will maintain current readiness to provide capabilities supporting Navy force structure objectives and the Fleet Response Plan (FRP).

4.2 Schedule

The schedule is built in a manner that takes advantage of available technology being installed on the last two ships of the DDG-51 Class. This technology provides the greatest Return-on-Investment (ROI) to the fleet and is available in FY 2010. The warfighting system upgrades, as well as the computer program will not be available until FY 2012 due to the complexity of the combat system portion of the DDG Modernization program. The current plan is to install DDG Modernization upgrades in two phases during CNO scheduled availabilities, as shown in Figure 2. The first two HM&E upgrades will be executed in FY 2010 followed by the Combat System upgrade on those same ships in FY 2012. A Modernization Availability Duration Working Group (MADWG) has determined notional availability durations for each phase of DDG Modernization:

Phase 1: HM&E upgrades for the DDG Modernization Program will be performed within a 24-week Extended Dry-docking Selected Restricted Availability (EDSRA). The current notional plan is 20 weeks of industrial availability to include nine weeks in dry-dock, followed by four weeks of pier side testing.

Phase 2: Combat System upgrades for the DDG Modernization Program will be performed in a 40-week Extended Selected Restricted Availability (ESRA). The current notional plan is 20 weeks of industrial availability, followed by 20 weeks pier side system testing and checkout.

An added benefit of separating the Combat System and HM&E upgrades into the two respective phases is that it best aligns the availability execution schedule with the FRP principles. The tight constraints of the FRP require that DDG Modernization be accomplished in a manner that minimizes the amount of time the ship is non-operational.

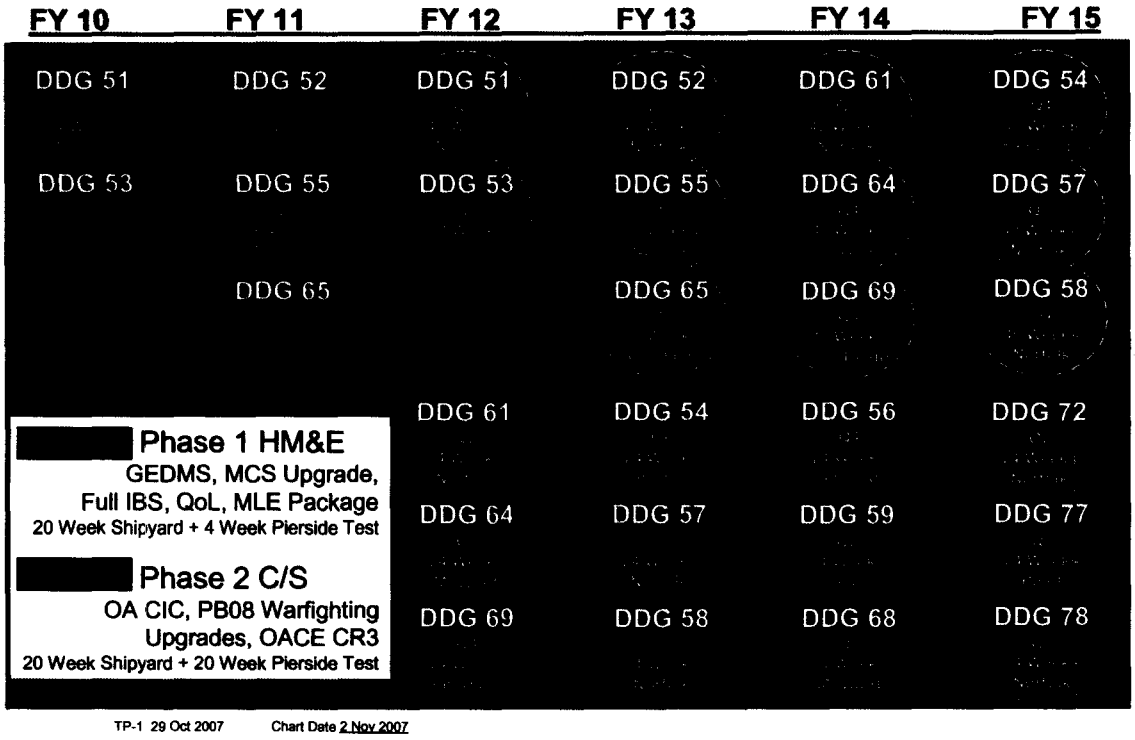


Figure 2 - DDG Modernization Fielding Plan

4.3 System Procurement

NAVSEA 21 is the organization responsible for the overall execution of the DDG Modernization Program. The Program Manager, PMS 400F, is charged with coordinating the overall program development and fielding schedule. This includes coordination with system Participating Acquisition Resource Manager(s) (PARM(s)) in both the HM&E and Combat Systems and C4I areas. The Program Executive Officer Integrated Warfare Systems (PEO IWS) will lead Combat Systems development and integration and will be responsible for the delivery of the warfighting functionalities, as required. These efforts shall include hardware and Open Architecture (OA) software upgrades.

Maintaining a single Program Manager construct for the DDG Modernization Program while assigning PARM responsibility for individual system design and procurement

contracts ensures effective integration of alterations approved within the Navy Modernization Process (NMP). By relying on PARM(s) to deliver their respective systems, the DDG Modernization 'Program of Programs' approach deliberately and intelligently shares the workload by delegating the detailed responsibilities to the established activities that are best qualified and positioned to successfully field the Program's discrete capabilities. Furthermore, by utilizing the DDG Planning Yard design and engineering teams to develop work specifications and other availability planning and specialized material support products, the Program ensures several acquisition advantages. This links the industrial base involvement back to the Building Yard by incorporating DDG 111 and 112 lessons learned, using the DDG-51 Class design expertise, and capitalizing on the non-recurring engineering investment by the DDG Shipbuilding Program.

4.4 Budget

The FY 2009 President's Budget (PB) supports execution of the DDG-51 Class Modernization Plan as described in the previous sections. Following is a summary of funds programmed for DDG Modernization, across the Future Year's Defense Program.

DDG Modernization Funding Summary

PB09 ($M)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Total
DDG Modernization*	35.9	74.2	205.4	247.1	415.2	445.0	509.1	1,932.0

***Equipment Procurement related funding only**
Does not include Combat System RDT&E for Computer Program Development

5. ACQUISITION STRATEGY AND AVAILABILITY EXECUTION

The DDG Modernization Program will pursue a tailored acquisition approach to achieving requirements. While not directly responsible for the design, development, and procurement of these systems, the DDG Modernization Program is charged with coordinating the delivery, integration, and test of systems required in a manner that supports scheduled availabilities. The Program Manager to Program Manager (PM to PM) agreement that SEA 21 has in place with PEO IWS facilitates a collaborative work environment, ensuring accountability and predictability in accomplishing the objectives of the Program. Additionally, the Program must carefully evaluate and select the most capable shipyard that will provide the best value to the Navy.

5.1 Acquisition Approach Considerations

The approach to developing the DDG Modernization Program acquisition strategy was founded on using existing industry best practices and maximizing available proven resources and processes that have been successfully implemented in similar Navy ship modernization programs such as CG Modernization and DDG Post Shakedown Availabilities (PSAs). These programs offered valuable lessons learned for acquisition strategy considerations. For example, the DDG PSA Program utilizes shipbuilder and homeport repair industrial bases by contracting the Building Yard to serve as the PSA Planning Yard for engineering and material procurement, and has competitively awarded

multiple ship contracts in each homeport for the execution of the availabilities. Besides spreading the industrial base, this plan of action has other inherent benefits such as ensuring competition, reducing risk, and preserving QOL through local availability execution. An initial lesson learned from the CG Modernization Program was the need for an analytical approach to determining the proper phasing and combination of trades required to achieve the best production schedule within a minimum amount of time. While leveraging lessons learned, the DDG Modernization Program focused on the following factors (listed in order of priority) for evaluating the logical acquisition options: Affordability, Competition, Quality of Life, Industrial Base, and Risk.

Affordability:

The DDG Modernization Program is required to execute within the budget set forth in PB 2009. The factors expected to impact the Program's ability to execute within cost constraints include, but are not limited to: geographic location of availabilities (e.g., TDY, PCS, temporary berthing, messing), available local resources (infrastructure and expertise), and repetitive learning curve cost reductions.

Competition:

The DDG Modernization acquisition strategy for availability execution will be crafted to foster competition with the goal of achieving the best value for the Navy. The apparent existence of multiple sources for execution is expected to support that pursuit. To further ensure best value, the Navy will require robust subcontracting plans at the system and component level.

Also, in accordance with FAR 19.7, DFARS 219.7, and Navy Marine Corps Acquisition Regulation Supplement 5219.201 and 5219.7, the following considerations will be addressed as appropriate in DDG Modernization acquisitions to maximize participation across the industrial base: FAR Clauses 52-219-8 (Utilization of Small Business Concerns), 52.219-9 (Small Business Subcontracting Plan), 52.219-16 (Liquidated Damages – Subcontracting Plan), and DFARS Clause 52.219-7003 (Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DoD Contracts)) and 252.219-7004 (Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (Test Program)).

Quality of Life:

The DDG Modernization Program considers the impact to QOL for the Sailors and their families. The Program must minimize adverse impacts to the components of QOL affected by the extensive industrial availability and test periods, which will be necessary to accomplish the DDG modernization upgrades. Examples of components which will be assessed for impact are listed below:

Basic Components

- Medical care
- Housing

Traditional Components

- Family
- Child care
- Education
- Residential Stability
- Recreation
- Military Facility Privileges – Exchange/Commissary

Work Components
- Shipboard/Industrial Facility living arrangements
- Training/Professional Development
- Crew cohesiveness and morale

Industrial Base:
For the purposes of the DDG Modernization Program, the status and construct of the U.S. shipbuilding and ship repair industries must be understood and carefully assessed when weighing acquisition options. The U.S. Naval industrial base for the DDG-51 Class is composed of two major Private Shipyards for DDG-51 Class new construction, General Dynamics Bath Iron Works (Bath, ME) and Northrop Grumman Ship Systems (Pascagoula, MS); and several Private Shipyards for execution of DDG-51 Class industrial availabilities. The primary functions of the Private Naval Shipbuilders are to construct the ship, provide design and engineering services for the Class, and perform Planning Yard functions. Private Shipyards located within proximity of U.S. Naval homeports perform three basic types of actions during industrial availabilities: preventative or scheduled maintenance, corrective or unscheduled repair, and modernization or upgrades for alterations approved within the NMP.

An ideal industrial base is one that is reliable, cost effective, and sufficiently delivers the products and services required by the Program. Several traits are considered when evaluating the industrial base factor against the acquisition options for DDG Modernization. Those traits include: Shipyard Facilities, Competency, Resources, and Certification. The shipyard's ability to accommodate the ship and its crew, its corporate knowledge and experience with accomplishing complex alterations aboard Navy ships, the availability of a skilled workforce, and the certifications it has obtained will be determined. From a geographic perspective, the Navy must consider regional resources and capabilities as well as the socioeconomic impact to the area.

In light of these industrial base considerations, the Navy has successfully employed the cost type MSMO contract vehicle over the last several years executing maintenance, modernization and repair availabilities on its surface combatants. The Navy has MSMO contracts in place in Puget Sound, WA; San Diego, CA; Ingleside, TX; Mayport, FL; Pearl Harbor, HI; and Norfolk, VA to accommodate industrial work in each homeport. Employment of multiple ship contract awards were encouraged in the March 17, 1982 GAO report to the Chairman, Subcommittee on Defense, House Committee on Appropriations entitled, "*Actions Needed To Reduce Schedule Slippage And Cost Growth On Contracts For Navy Ship Overhauls.*" The MSMO consolidation of requirements

under a single procurement for ship repair, modernization, continuous and emergent maintenance is necessary to meet the Navy's vision and the intent of the FRP and NMP.

Execution of the DDG Modernization Program will also require the involvement and expertise of the DDG-51 Class Planning Yard for preplanning, kitting, design, and execution phases of planned availabilities. As such, DDG Modernization is expected to represent additional workload for the Class Planning Yard. This follows the CG Modernization model in which the CG-47 Class Planning Yard executed availability planning responsibilities.

Risk:
The level of risk associated with executing the modernization availabilities is important to assessing the Program's acquisition options. The availability of an experienced and skilled workforce is required to successfully execute modernization availabilities with this complexity. Other critical factors affecting risk are the shipyards' facilities, projected workload, and overall port loading as it impacts the availability of resources across the waterfront.

5.2 Acquisition Options
The following acquisition options have been evaluated. These options are analyzed below using the evaluation factors described in Section 5.1.

Option A
Sole source award to DDG Lead Shipbuilding Yard or a limited competition between DDG new construction builders:

While sole source contract award to the builders for execution of the modernization availabilities helps mitigate execution risk, it presents a negative impact to competition. The DDG-51 Class Modernization Availabilities are extraordinarily complex and the new construction shipyards likely possess the inherent knowledge and ability to successfully execute the modernization. However, limiting competition to only the Building Yards not only eliminates the Homeport Shipyard and repair facilities from competing for the work, but also increases costs due to transportation, temporary berthing, and messing requirements. Additionally, this option would displace some, or all, of the crew from ship's homeport or require "de-crewing" the ship.

Option B
Full and open competition to sources local to the homeport using MSMO contracts (includes Private Repair Yards, Naval Shipyards, and Building Yard affiliates and partners):

A full and open competition for executing Modernization Availabilities between sources local to the homeport will leverage expertise in planning and executing extensive alterations on completed ships and facilitate the use of existing MSMO contracts ensuring significant competition occurs between offerors. Availability risk is mitigated by the homeport shipyards industrial expertise gained from executing Surface Combatant

availabilities and likely access to a skilled labor pool. Finally, QOL for ships' force is preserved by remaining in the homeport, and avoiding the potential for added costs of executing in areas outside of the homeport.

Option C
Full and open coastwide competition (includes Private Repair Yards, Naval Shipyards, and Building Yards):

This option optimizes competition through full and open coastwide solicitation. As discussed in previous options, the risk factor is mitigated by the apparent ability of all previously mentioned sources' to successfully execute the modernization availabilities leveraging their respective strengths. Evaluation of other factors relative to this option is dependent upon whether the work is awarded to the Building Yards, offerors within the homeport, or offerors outside of the homeport area. From an industrial base perspective the Navy acknowledges that work gained by one shipyard is work not realized by another. However, as the Homeport Shipyards have programmed Modernization into their workload assumptions, loss of this work would have a significant negative impact to other program costs in respective homeport. Sailors QOL is best served by executing the availabilities in the homeports therefore avoiding the additional transportation, berthing, and messing costs levied if accomplished in the Builders Yards.

5.3 Statutory Considerations
Execution of the DDG Modernization Program will comply with all existing statutes and instructions. This includes 10 USC 2799a, Construction of Combatant and Escort Vessels and Assignment of Vessel Projects, which states that the Navy shall, in determining the cost or price of work to be performed in an area outside the area of the homeport of the vessel, consider foreseeable costs of moving the vessel and its crew from the homeport to the outside area and from the outside area back to the homeport at the completion of the contract. In addition, 10 USC 2799a directs that before issuing a solicitation for a contract for short-term work (defined as six months or less) for the overhaul, repair, or maintenance of a naval vessel, the Secretary of the Navy shall determine if there is adequate competition available among firms able to perform the work at the homeport of the vessel.

This statute is further reflected in OPNAV Instruction 4700.7K, which directs that all CNO scheduled private sector depot-level availabilities of six months duration or less be solicited to be accomplished in the ship's homeport area, or cluster, or as close to same as is required to ensure adequate competition, capacity, and capability, to comply with personnel tempo of operations requirements. The intent of this provision is to improve the ship crew's quality of life by reducing time away from home when possible. If the duration of work is expected to last longer than six months, the Navy expands the solicitation to a coast-wide versus homeport industrial base.

5.4 Acquisition Strategy Summary
The DDG Modernization acquisition strategy will balance all factors in assessing best value for the Navy. In addition, the execution of DDG Modernization availabilities will

comply with all existing statutes and instructions, including Navy homeport policy outlined in Section 5.3, which directs that all availabilities of a duration of six months or less are to be conducted in the ship's homeport, when possible. Based on this statutory condition and the results of the analysis of factors reflected in Section 5.2, the Navy envisions conducting DDG Modernization utilizing full and open competition to sources local to the homeport. As such, work would be awarded on a competitive basis within the construct of respective MSMO contract vehicles.

6. CONCLUSION

Modernizing the DDG-51 Class is an integral component of the Navy's recapitalization strategy and critically supports surface combatants future force structure requirements. In light of this, the Navy is pursuing a proven acquisition approach that carefully evaluates the critical factors necessary for ensuring best value for the Navy. NAVSEA is confident that it will meet the precepts put forth by the CNO in 2003; fill the previously identified warfighting and capability gaps; reduce TOC; maintain expected ships' service life; and improve QOL for the crew. Selecting the right strategy, as referenced in Section 5.4, to execute these Modernization availabilities will be paramount to the Program's success. The end result is a more effective and efficient war fighting capability for this combatant Class that will comprise the majority of the surface fleet for the foreseeable future. The Navy is currently positioned to execute the plan as described in this report.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

This report addresses the concerns of the Senate Armed Services Committee as identified in the list of specific OA questions in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from the inception of the Naval Open Architecture Enterprise Team (OAET) in August, 2004 through December, 2007; highlights the significant challenges the Navy faces in implementing OA; and describes the Navy's long term focus for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

This report addresses the concerns of the Senate Armed Services Committee as identified in the list of specific OA questions in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from the inception of the Naval Open Architecture Enterprise Team (OAET) in August, 2004 through December, 2007; highlights the significant challenges the Navy faces in implementing OA; and describes the Navy's long term focus for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

This report addresses the concerns of the Senate Armed Services Committee as identified in the list of specific OA questions in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from the inception of the Naval Open Architecture Enterprise Team (OAET) in August, 2004 through December, 2007; highlights the significant challenges the Navy faces in implementing OA; and describes the Navy's long term focus for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

This report addresses the concerns of the Senate Armed Services Committee as identified in the list of specific OA questions in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from the inception of the Naval Open Architecture Enterprise Team (OAET) in August, 2004 through December, 2007; highlights the significant challenges the Navy faces in implementing OA; and describes the Navy's long term focus for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

FIRST QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems
Washington, DC 20376

February 2008

Table of Contents

I. Report Requirement 2
II. NOA Background 2
III. NOA Strategy and Accomplishments 5
IV. Challenges and Performance 18
V. Long Term Focus – Fiscal Year 2009 Planning 18
VI. Summary 25
Appendix 1 – List of Acronyms 26
Appendix 2 – Domain OA Roadmaps 28

I. Report Requirement

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed "...the Secretary of the Navy to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

As directed by the Senate Armed Services Committee, the "report shall include: (i) an integrated schedule outlining OA development and the related surface ship fielding plan; (ii) an assessment of OA development, test, procurement, installation, and operating and support costs; (iii) the Navy's acquisition strategy for leveraging competition in software development; and (iv) the Navy's performance to the OA plan. Additionally, the report shall: (i) identify software that is intended to be available for re-use by third parties in support of the OA implementation plan; (ii) describe the Navy's progress in making that software and related documentation available through the Navy's Software, Hardware Asset Re-use Enterprise (SHARE) Library; (iii) describe how the Navy is assuring quality and appropriate data rights for software and related documentation deposited in the SHARE Library; (iv) describe how the Navy is driving re-use of SHARE Library software; (v) outline contracts which have re-used third party software from the SHARE Library; and (vi) identify the impediments to entering outstanding Navy system software into the SHARE Library and the plan for managing these impediments."

The purpose of this report is to:

- Address the concerns of the Senate Armed Services Committee;
- Review progress and accomplishments related to Naval Open Architecture (NOA);
- Highlight the significant challenges the Department of the Navy (DoN) faces in implementing OA; and
- Describe DoN long term focus for implementing OA.

II. NOA Background

NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. The Navy and Marine Corps have adopted OA as one way to reduce the rising cost of Naval warfare systems (also known as National Security Systems or NSSs) and platforms and to increase the capabilities of Naval systems. NOA allows for incorporating more commercial-off-the-shelf (COTS) technology or technology built to generally accepted or open standards in warfare systems and supports re-use of software and related assets. In addition, NOA is an enabler of FORCEnet, the operational construct and architectural framework for Naval warfare in the information age. More importantly, OA fosters greater competition among system developers at both the prime and subcontract level by incorporating business and technical principles such as adherence to open standards and

publishing interfaces as part of the acquisition process. These same mechanisms also encourage greater collaboration among various organizations. The U.S. Government's (hereinafter "Government") ability to define or re-use the architecture and acquire at least Government Purpose Rights (GPR) to data and intellectual property and to minimize proprietary elements that prevent alternative solutions to the lowest component level is important to this effort.[1]

The Advanced Combat System Technology (OA) program (Program Element 0603382N) implements Department of Defense (DoD), Office of the Chief of Naval Operations (OPNAV), and Assistant Secretary of the Navy (Research, Development, & Acquisition) (ASN(RDA)) direction to incorporate modularity and openness throughout DoN business and technical approaches to NSS acquisition. The NOA effort is the only Naval Program Element that aligns efforts to radically improve the way DoN develops and procures NSSs across all Domains (Surface, Submarine, Aviation, C4I, Space, and Marine Corps). Significant milestones in NOA include:

- In June 2004, a "Red Team" conducted an assessment of the DoN plan to implement an "OA" strategy that was originally approved in October 2003. The Red Team cited OA's criticality to achieving the DoN goal for cost-effective sustainability and recommended that the DoN place greater emphasis on the business and cultural aspects of OA.
- In August 2004, DoN established the OA Enterprise Team (OAET) to lead the Naval OA Strategy, stating that OA "*is essential as a key enabler and pillar of the Department of Defense's (DoD) focus on joint architectures and evolutionary acquisition.*" The Program Executive Office for Integrated Warfare Systems (PEO IWS) was assigned overall responsibility and authority for directing the DoN OA Enterprise Effort. The team is comprised of OA Domain Leads and Representatives from Aviation, C4I, Space, Submarines, Surface, Marine Corps, OPNAV, the Antisubmarine Warfare (ASW) Community of Interest (COI), System Commands (SYSCOMs), support contractors and University Affiliated Research Centers. The OAET is primarily responsible for recommending Naval Enterprise-wide strategies, assessment tools, contract guidance, and other capabilities in support of OA implementation by programs within each Domain.
- The Deputy Chief of Naval Operations (DCNO) (N6/N7) issued a Requirement for OA Implementation, dated December 23, 2005 that established the requirement to implement OA principles across the Naval Enterprise.
- On August 28, 2006, the Chief of Naval Operations sent a letter to ASN(RDA) stating his vision for OA as being "*not limited to systems built to a set of open standards, but rather it is focused on open business models for the acquisition and spiral development of new systems that enable multiple developers to collectively and competitively participate in cost-effective and innovative capability delivery to the Naval Enterprise.*"

[1] "Government Purpose Rights" or "GPR" is defined in the Defense Federal Acquisition Regulation Supplement, (DFARS) Section 252.227-7013(a)(11).

- The Secretary of the Navy, Chief of Naval Operations (CNO), and the Commandant of the Marine Corps jointly called for the implementation of Naval OA across Navy and Marine Corps combat systems as one of the DoN 2007 and 2008 Objectives.
- ASN(RDA) chaired four OA Executive Committee Meetings (EXCOMMs) and co-chaired the most recent EXCOMM (October 2006) with the CNO. These meetings have provided DoN leadership an opportunity to assess the processes, progress, and roadblocks encountered in carrying out their direction to employ OA principles in all applicable Naval system acquisitions. Based on the information provided by the Domains, the chair(s) of the EXCOMM have assigned actions and set policy.
- The OAET hosted two OA Industry Symposia (in March 2005 and February 2006), each attended by over 100 representatives from the private sector.
- ASN(RDA) issued a series of policy memoranda related to developing an Open Business Model in the Surface Domain in 2007.
- The Software Productivity Improvement Initiative under the direction of ASN(RDA) promulgated requirements designed to improve DoN acquisition managers' visibility into Offerors' and contractors' software development processes to ensure that there are well-documented, effective software processes and continuous process improvement practices in place during contract performance. In July 2007 ASN(RDA) provided additional guidance regarding tailorable and non-tailorable language and information on the directed contract language.
- The President's Budget Request for the Naval Enterprise OA Initiative for Fiscal Year 2009 is as follows; it does not include program-specific funding such as investments in Aegis OA.

Fiscal Year	Naval Enterprise OA Budget
2007	$20.3M
2008	$11.5M
2009	$4.4M
2010	$10.1M
2011	$12.1M
2012	$12.1M
2013	$10.1M

1. Fiscal Year 2007 funding includes a $1.3M Congressional add for OA Maintenance Free Operating Period.
2. Fiscal Year 2008 funding includes a $2.4M Congressional add for OA Maintenance Free Operating Period.

III. NOA Strategy and Accomplishments

NOA accomplishments at the Naval Enterprise level and NOA objectives for Fiscal Year 2008 are summarized below.

A. Enterprise Accomplishments

The OAET executes all requirements and tasking in accordance with the August 2004 OA Policy Statement, December 2005 OPNAV OA Requirements Letter, and OA EXCOMM Action Items. These requirements and tasks comprise the Naval OA Strategy which was signed out by PEO IWS as the Chair of the OA Lead Council in December 2006. The strategy is comprised of three overarching goals, addressing the business, technical, and cultural aspects of transformation.

Goal 1 - Change Naval processes and business practices to utilize open systems architectures in order to rapidly field affordable, interoperable systems

Goal 1 – Accomplishments

The following actions have been taken to achieve this goal:

- In response to the Red Team's recommendation to increase industry involvement with the transition to NOA, PEO IWS competitively selected two firms to provide advice and recommendations to PEO IWS and the OAET on technology and business trends, leading industry practices for developing software intensive systems, and organizational transformation.
- Developed and promulgated the Naval Enterprise definition of NOA, along with an extensive glossary of terms associated with NOA.
- Built the Open Architecture Assessment Tool (OAAT) released in December 2005 and updated in October 2006.
- Performed baseline assessments of DoN OA contracting and re-use practices. Used the results to develop the *Naval OA Contract Guidebook for Program Managers*, issued in July 2006 and used by over 150 Naval Programs. An updated *Guidebook* incorporating "lessons learned" was released in October 2007.
- Made investments in infrastructure to facilitate collaboration and re-use of system components and assets across the Naval Enterprise.
    - Established the SHARE repository as a pilot within the Surface Domain in early 2006 to rapidly provide a basic capability for asset delivery and re-use. To date, 60 assets have been submitted by the following programs: Aegis (Release BL 7.1.1.1), the Ship Self Defense System (SSDS), Littoral Combat Ship (LCS), DDG 1000 Zumwalt Class Destroyer (partial deposits), and Single Integrated Air Picture (SIAP) Integrated Architecture Behavior Model (IABM). The user community has grown to 153 registered users and over 132 requests for assets have been fulfilled.

- Established PEO Command Control Communications Computer and Intelligence (C4I's) Net-centric Enterprise Solutions for Interoperability (NESI) collaborative environment in 2004 in partnership with the USAF Electronic Systems Command (ESC) to provide a capability that facilitates software re-use and promotes interoperability.

Goal 1 – Fiscal Year 2008 Objectives

Objective 1: Provide OA implementation oversight by providing and refining policies, guidance, and terminology required to establish a consistent approach for OA; developing additional guidance as needed; and, supporting accomplishment of OA EXCOMM actions.

Objective 2: Assist Milestone Decision Authorities, Program Managers (PMs), and Resource Sponsors in assessing program openness, where appropriate, to make informed OA investment decisions by providing analytical toolsets needed to assess programs; establishing guidance on how to utilize OA Assessment results for decision-making; and, conducting Program Assessments.

Objective 3: Implement and refine OA Contract Guidance to be used in applicable procurements tailored as necessary to meet Domain-specific requirements by managing *OA Contract Guidebook* development and improvement; assisting PMs with incorporating OA language into acquisition documents; and reporting progress.

Objective 4: Facilitate design disclosure and cross-domain component re-use (where feasible) to reduce costs and enable more effective technology insertion. This includes developing a Naval Enterprise process for software (and other asset) re-use based on the recommendations from the *OAET Software Re-use Baseline Assessment*; supporting the OPNAV OA Cross Functional Board with aligning common requirements across programs to achieve commonality and interoperability; building an OA Enterprise Asset Repository Capability that incorporates a common end-user licensing agreement and Enterprise configuration management process that is open and accessible to all Naval and Joint programs and qualified vendors; align SHARE and NESI to support Enterprise Asset Repository Capability; and participating in and supporting the ASW COI to facilitate re-use.

Goal 2: Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs

Goal 2 – Accomplishments

The following actions have been taken to achieve this goal:

- The OAET conducted the first OA/FORCEnet Experiment in 2006. The experiment used a common data model to enhance situation awareness by

integrating Track (Sub, Surface, Air), Electronic Intelligence, and imagery data from five different combat systems into a single display using a single data model – an innovative departure from traditional, closed point-to-point interfaces used to integrate different systems. The 2006 Experiment demonstrated the feasibility of using collaborative engineering across Domains to support efficient development of new modular, open components. Collaboration was maintained throughout code development and testing. Models and technologies were available to third party vendors. Small businesses played a large role in development of the test technologies.

- The 2007 OA/FORCEnet experiment built off the 2006 Experiment by extending participation to a wider group including seven DoD Players/Nodes and eight Industry/Academia Players. This year extended the principle of shared and reused components, focusing on maturing and extending a joint core data model, reusing many attributes of the Fiscal Year 2006 model, linking multiple systems together for the first time to produce a common operating picture. During this experiment, common track data was selectively shared across several platforms in an ASW scenario to improve interoperability and improve warfighter performance. Selected Fiscal Year 2007 design artifacts from the Experiment will be made available in both SHARE and NESI repositories in Fiscal Year 2008.
- PEO C4I created technical guidance in support of NESI, consisting of a body of architectural and engineering knowledge that guides the design, implementation, maintenance, evolution, and use of the information technology portion of net-centric solutions for military application interoperability.
- The ASW COI was established "to prove out definitions, capabilities and concepts," and is currently reusing software across several ASW platforms. The COI is crafting software development and maintenance governance and processes to support the efficient development and additional re-use of ASW application software across all ASW platforms.

Goal 2 – Fiscal Year 2008 Objectives

Objective 1: Conduct OA/FORCEnet systems engineering experimentation to facilitate the fielding of interoperable capabilities and encourage collaboration.

Objective 2: Oversee OA implementation efforts to ensure standardized and disciplined processes are used across Domains.

Objective 3: Identify and foster "quick win" candidates and near-term proofs of concept for OPNAV to field additional capabilities at reduced costs.

Objective 4: Ensure Naval OA remains relevant to Science and Technology (S&T) advancement by identifying OA-related research and development, Rapid Technology Transition, and Small Business Innovative Research candidates; assisting in development of OA-based approaches to bridge the gap between S&T and acquisition programs as required; and coordinating with the Office of Naval Research on emerging technologies or approaches that may impact OA or the "next OA."

Objective 5: Support the Test and Evaluation (T&E) community and academia/industry partners to identify opportunities to reduce T&E expenses as a result of OA.

Goal 3: Change Navy and Marine Corps cultures to institutionalize OA principles

Goal 3 – Accomplishments

The following actions have been taken to achieve this goal:

- Naval OA outreach efforts have included two OA Industry Days held in 2005 and 2006, an internal DoN OA Contract Symposium in 2006, and numerous speaking engagements at other DoN, Defense Department, or Government-related conferences, symposia, and trade expos through 2007. The Armed Forces Communications and Electronics Association (AFCEA), with the support of NAVAIR stakeholders, hosted a two-day OA Conference in August 2007.
- OA training sessions have been conducted with a wide range of Naval and DoD activities, including Fleet Forces Command, Marine Corps System Command, the Navy Research Laboratory (NRL) Multi-Function Electronic Warfare program, NAVSEA Contracts Office (SEA 02) and the Evolved NATO Sea Sparrow Missile program office.
- PEO IWS has held numerous collaborative sessions with a broad range of U.S. organizations and Allied Navies including the Defense Information Systems Agency, the U.S. Coast Guard, the Royal Navy, the U.S. Air Force and the Royal Australian Navy.
- Convened the first OA Wargame in May 2007, examining issues related to incorporating Naval OA into the CVN 21 (CVN 78) program. Over the course of the two-day exercise, the CVN 21 Program was notionally advanced through several stages of the business and acquisition cycle while the participants, arranged into groups, analyzed scenario questions designed to generate ideas in a collaborative forum. The groups worked independently on the same scenarios and reported their results during plenary sessions. While the game's moves, discussions, and subsequent facilitator observations and discussions generated recommendations for the CVN 21 Program, there were a number of recommendations that also applied to the wider Naval enterprise and are under consideration by the OAET.
- Established the Naval OA special interest area website (https://acc.dau.mil/oa) as a central point of communication to internal and external stakeholders. It currently receives about 40,000 page views per month and has been extensively used to download products such as the OAAT, Glossary of Terms, briefings and the *OA Contract Guidebook*. The NOA website is also a portal to access the NOA Continuous Learning Module described below.
- Funded the Naval Postgraduate School (NPS) to conduct an extensive program of OA-related research in conjunction with the NPS Acquisition Research Program.

- NPS has adopted an OA-specific Educational Skills Requirement, which applies to all Systems Engineering Master of Science programs, both resident and distance learning, and all Systems Engineering Certificate programs.
- The OAET, in conjunction with the Defense Acquisition University, developed the Naval OA Continuous Learning Module, available to the public on the Internet. As of January 14, 2008, 435 individuals have taken the course.

Goal 3 – Fiscal Year 2008 Objectives

Objective 1: Increase the awareness of OA through the development of standard communications tools and reporting (i.e. presentations, papers, web content).

Objective 2: Increase workforce skill sets through targeted training and ongoing research.

Objective 3: Conduct Outreach to External Stakeholders to increase the awareness of the NOA Initiative.

Objective 4: Measure progress on Cultural Change using a Cultural Dashboard.

B. SHARE and Naval Enterprise OA Data Consolidation Repositories

The SHARE repository was established in early 2006 by PEO IWS as a pilot project within the Surface Domain and PEO IWS to facilitate access to Aegis and other Domain combat system components.

The C4I Domain developed the NESI collaborative environment in 2004 in partnership with the USAF ESC to provide a capability that facilitates software re-use and promotes interoperability. PEO C4I also developed NESI guidance that requires all C4I programs to obtain the appropriate level of data rights favorable to DoN, and to have all deliverables placed in the NESI Collaboration Web Site so that they can be made available for re-use by others within the Naval Enterprise.

Specific responses to the Committee's request for information regarding re-use and repositories follow.

(i) Making software available for re-use by third parties in support of the Naval OA implementation plan.

The Surface Domain's current policy is to add all artifacts that the Government has GPR or less restrictive rights to into SHARE with the intention of facilitating both re-use or design disclosure. "Less restrictive rights" means that the actual restrictions placed on the Government's ability to use such software are fewer than those customarily available under GPR. As the Surface Domain's experience with SHARE and re-use expands, it will evolve policies governing asset management and use. The items available in

SHARE and NESI are identified below. The first re-use product provided to SHARE was a firm's product set and its use of the Aegis artifacts in SHARE as described in (ii)-(v) below. To some degree the Total Ship Computing Environment Infrastructure and LCS data models are also available for re-use. Re-use enabled by NESI is also discussed below.

SHARE and NESI are not the only mechanisms or models for supporting re-use. The Submarine Domain uses a third party incorporation plan that supports cross-platform re-use on a large scale. The Submarine Domain, at the direction of the Program Office, requires re-use on a case-by-case basis and is becoming more effective in supporting re-use at the subsystem level. The Marine Corps regularly incorporates capabilities developed by other organizations and Services. For Example, Marine Air Ground Task Force Command and Control is a collection of capabilities that incorporates programs from both Marine Corps and other organizations and Services. The Ground/Air Task Oriented Radar System is investigating re-use of components from an Air Force radar system.

(ii) Progress in making software and related documentation available in Naval asset repositories.

Currently 60 assets (containing over 10,114 artifacts)[2] have been made available in SHARE. These include the following:

- Aegis – 40 documentation assets (containing 173 artifacts), five application/code assets, one system service (code) asset; approximately 1,314 Thousand Source Lines of Code (KSLOC)
- DDG 1000 – two documentation assets (containing 30+ artifacts), two application/code assets (containing 1,884+ artifacts); approximately 1,500 KSLOC
- LCS – two architecture/design assets (data models) (containing 93 artifacts)
- SIAP – one model (containing 101 artifacts)
- SSDS – five documentation assets (containing five artifacts), two application/code assets (containing 7,828 artifacts); approximately 1,108 KSLOC

NESI contains 73 programs and projects (consisting of over 2500 artifacts), which are available in NESI for re-hosting or porting re-use by the Naval Enterprise. These include the following:

- Common Link Integration Processing – 32 documentation artifacts, 22 application/code/model artifacts

[2] **Artifact**: Products of a system/software development life cycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

- Next Generation Navy Integrated Tactical Environmental System (NITES Next) Government Furnished Information – 24 documentation artifacts, 20 application/code artifacts
- Joint Tactical Radio System Application Program Interfaces (API) – 220 documentation artifacts, 40 API artifacts
- Future Consolidated Afloat Network Enterprise Services (CANES) Federated Development & Certification Environment (FDCE tools) – six documentation artifacts
- Future Command & Control Capability (Extensible Common Operational Picture - XCOP) – ten application/code artifacts
- Automated Identification System (AIS) – six application/code artifacts
- Automated Digital Network System (ADNS) Increment III – eight documentation artifacts
- All C4I artifacts used in the 2007 OA/FORCEnet (OA/Fn) Experiment including those items developed using composable FORCEnet software development kits taken directly from the NESI.

Future planned re-use will include the Universal Core Data model, Web Service Definition Language components, Security components and services, Universal Description, Discovery and Integration schema/taxonomies, portlets, Enterprise Service Bus software configurations, specifications and supporting documentation.

(iii) How DoN is assuring quality for software and related documentation deposited in the SHARE, NESI and Similar Libraries.

Artifacts deposited into SHARE and NESI are limited to those that have GPR or less restrictive rights associated with them. This restriction is necessary because the Government generally does not have legal authority to provide assets outside of the Government except in limited circumstances. Therefore, all artifacts submitted for deposit into SHARE and NESI are audited for intellectual property markings. Artifacts will occasionally contain embedded COTS, Open Source or proprietary software. Any inappropriate markings (more restrictive than GPR) must be justified or replaced. Any justified restrictive markings and related assets cannot be placed in SHARE. This same restriction is enforced on any modification or derivative use of the artifacts. As DoN moves to open, modular systems, its ability to add appropriate materials into its repositories for re-use will increase.

All software and other items entered into both SHARE and NESI are provided without warranty of any kind. Users are allowed to withdraw components or subsystems that are not separately tested and certified. Though not all components and artifacts were tested separately, they did undergo developmental and/or operational testing as part of the overall source system. Therefore, the quality of software as it enters either the SHARE repository or NESI Collaboration Site is assured. However, this prior testing of these components does not relieve the user or contractor from any testing or recertification required by the system that will be incorporating these materials. While reused software has been shown to have significantly fewer trouble reports and higher stability, PMs

reusing artifacts are responsible for ensuring that their systems, including components from SHARE, meet current testing and certification requirements.

NPS is currently conducting research to improve the use of SHARE by refining the repository ontology and developing a component specification framework. This specification framework will provide a model of the components in the repository as well as the relationships that provide contextual meaning. This ontology and component specification will be extended across not only SHARE, but also other Naval repository efforts to promote consistency and enable wider re-use across the Naval Enterprise. Conformance to the specification framework will ensure that assets provided are complete (i.e., have sufficient information to be useful) and of consistent format and content.

(iv) How DoN is driving re-use of software and other assets.

The DoD 5000.2A *Acquisition Guidebook* and other DoN guidance encourage programs to "identify and exploit, where practicable, Government and commercial software re-use opportunities before developing new software." Domains are working with programs as appropriate to re-use software and related assets located in repositories such as SHARE and NESI. The *OA Contract Guidebook* also contains specific language that can be incorporated into acquisition documents that requires contractors to evaluate incorporation of repository assets (as Government-furnished Information) into their proposed solution.

DoN is working through the responsible PMs to include the requirement to participate in SHARE and NESI through two avenues. First, PMs and Offerors (contractors) are being encouraged to contractually require that their vendors provide deliverable assets in a form for the PM to submit to SHARE (and NESI for C4I artifacts). Secondly, PMs are encouraged to investigate assets in SHARE and NESI not only for their potential re-use, but also as part of a broader effort to strengthen industrial capability through a process of design disclosure. Enhancing participating vendors' understanding of the interfaces and other attributes of the applications that new or revised components interact with enables greater system interoperability and facilitates competition.

As PMs become aware of capabilities such as SHARE and NESI, and the benefits gained from using them, they will require that those responsible for developing products for their respective programs submit assets to and retrieve assets from these Naval repositories and collaboration sites. Although it contains mostly Surface Domain artifacts, SHARE can be scaled to serve as a Naval Enterprise resource and is a model for asset re-use. For example, NRL is working to add an asset that it developed to SHARE. Currently, there are 151 registered users comprised of 89 Government and 62 contractor (representing 18 small and 15 large companies) personnel. In addition, 249 requests for assets have been made of which 132 have been fulfilled and 33 are outstanding. Eighty-four requests were withdrawn after discussions between the SHARE administrators and asset requesters. Reasons for withdrawals include the requesters deciding to seek other assets, defer the request because they are not ready to use the asset, or have determined that they should

wait until a different version of the asset is available. Several requesters also completed the work they were performing for DoN before receiving the asset. Four companies who have used 29 assets from SHARE have already returned eight new assets to SHARE.

In addition, Marine Corps makes available the Statement of Work, Contracts Data Requirements List And Tracking Tool (SCATT) to all Marine Corps project officers for use in developing contract language. That tool has been modified to include language relevant to OA as prescribed in the *OA Contract Guidebook* version 1.0. SCATT has been advertised to other domains and made available via web-access. Additionally, Marine Corps is currently investigating making SCATT available on SHARE.

(v) Progress in re-using third party software from the SHARE and NESI Repositories.

While it is too early to expect widespread re-use of SHARE and NESI assets, the first substantive use of the SHARE library has been achieved. A contractor was competitively awarded a contract to provide system engineering and development of the artifacts required to facilitate making the IABM ready for integration within the Navy SIAP Pathfinder programs. This contract is managed through a series of Technical Instructions (TIs). In December 2006, a TI was issued to develop a "framework model of the Objective Joint Track Management Architecture and Open Command and Control (C2) functionality to allow incorporation of the existing Aegis Weapon System and IABM." The contractor, along with its three subcontractors checked out 28 Aegis assets (containing 105+ artifacts) and the LCS Data Model (containing 45 artifacts) from SHARE. The contractor submitted assets back to SHARE as a result of this effort. Navy is now evaluating these assets as part of an overall plan to migrate Surface Navy combat systems into a fully opened architecture.

Government-owned Mission Essential Meteorological and Oceanographic Center application software and NITES application software were placed in the NESI Collaboration Site for developers to leverage and aid the development of the next generation of meteorological and tactical environment decision aide capability under the NITES-Next Program. Additionally, components of currently fielded PEO C4I command and control applications, such as the XCOP, were placed in NESI and successfully re-used by the Rapid Deployment Capability (RDC) program AIS to satisfy a quick fill CNO-mandated real world requirement. In another example, the software development kits from the latest ASW Limited Objective Experiment (LOE) have been placed in NESI for leveraging and re-use in the development of components for the future CANES program. Finally, components of the Undersea Warfare Decision Support System, which are hosted in SHARE – and are linked to the NESI Collaboration Site, are going to be reused by early adopters engaged in the development of Maritime Tactical Services.

(vi) Addressing the impediments to entering DoN system software and assets into the SHARE and NESI repositories and re-using these assets.

The most prominent impediments to adding additional Naval software and assets into the SHARE and NESI repositories are issues related to data rights and the monolithic nature of many of the Department's legacy combat systems. If the Department does not have GPR or less restrictive rights on software and other system assets, it is precluded from reusing these items except through the owner of those assets. This situation arises when the Naval community accepts deliverables that have restricted data rights (e.g. COTS and Independent Research and Development-funded work) or accepts offers for deliverables with restrictive data rights when the business case warrants. Assets with restrictive rights cannot be deposited into the SHARE and NESI repositories. DoN will continue to evolve and streamline the processes it uses to allow access to assets as it gains experience with its SHARE and NESI repositories.

DoN has been slow in incorporating or transitioning to a modular, open system approach in their designs, due in part, to cost considerations or future fielding requirements. These monolithic systems cannot be easily componentized, making it difficult to re-use system elements without making a significant investment in breaking the entire system into smaller parts. This "re-engineering" is particularly challenging for vendors interested in using part of the system. In most cases, these entities do not have the in-depth knowledge of the overall system that the original developer has. Furthermore, potential third party vendors often do not have the financial resources necessary to "reverse engineer" the system to create the components they require. The lack of components with published, open standards-based interfaces makes legacy system artifacts less re-usable.

There are currently no specific requirements regarding the artifacts and format that constitute an "asset" that can be submitted into the repository. Therefore, items are sometimes received with no structure, no file extensions, and containing a range of file types (encrypted, compressed, jpgs, etc.). The *OA Contract Guidebook* and other guidance makes recommendations for specific deliverables that a program should receive in order to facilitate asset re-use. Through efforts such as the Consolidated Netcentric Data Environment and the Joint C2 effort, the Naval community is taking steps to develop and enforce Enterprise-wide component specification frameworks at various levels. When developed, these frameworks will ultimately eliminate the root cause of this impediment. This work is being closely coordinated to ensure that the lessons learned from the use of SHARE can be extended to other repositories such as NESI and contribute to an eventual realization of the broader Naval Enterprise repository capability.

Each artifact that is considered for insertion into the SHARE and NESI repositories must be audited for intellectual property that is more restrictive than GPR using a combination of manual and automated (tool) techniques. The time required to perform these audits depends on the makeup and size of the artifacts submitted. Currently, most of the artifacts that have been submitted to SHARE are legacy products containing a range of potential intellectual property markings. A SHARE/Legal Integrated Process Team has been established to address changes and improvements to the audit and analysis process

that will aid in expediting the analysis of artifacts. For example, DoN is looking at automated tools to help reduce the time required for the analysis of markings. Adoption of contractual requirements requiring insertion of deliverables and work products into SHARE and NESI, along with greater enforcement of GPR, will increase the number of assets that must be reviewed. As the Department becomes more familiar with this review process, the frequency and severity of these sorts of issues will decrease.

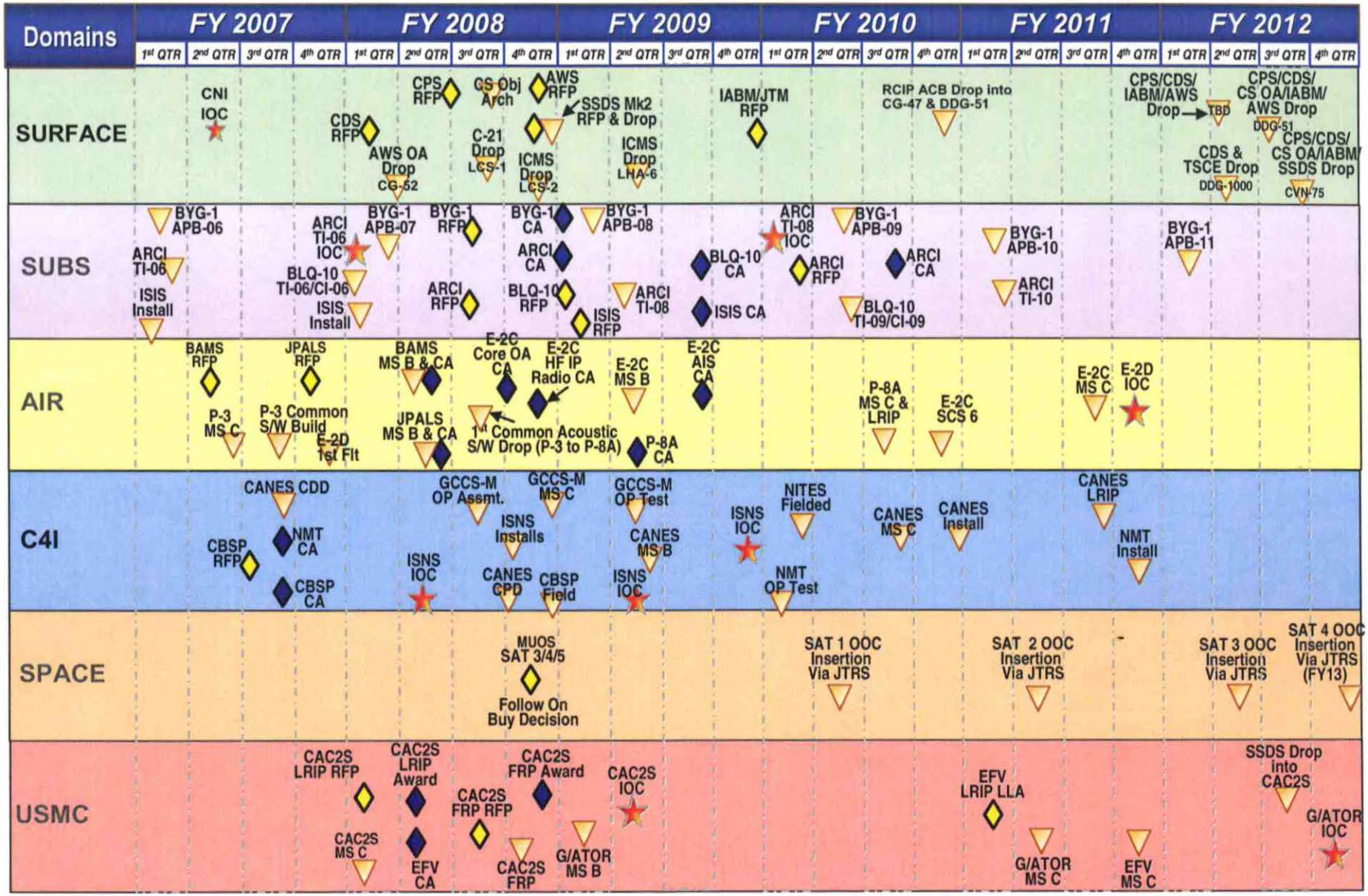
As with any broad effort involving cultural change, there remain challenges in instituting new business practices and approaches. There remains a lack of awareness of the benefits of SHARE and perceptions that act as disincentives to both government and industry to fully participate in SHARE. These impediments can be addressed by: continued up-front engagement and education; continued evolution of contracts language requiring use of SHARE; and, the sustained commitment of Naval Enterprise leadership to inclusion and enforcement of contractual requirements to use SHARE.

As the Department continues to make progress in addressing the technical aspects of OA (including incorporating greater modularity into system architectures, limiting or isolating proprietary components, and creating and publishing open-standards-based component interfaces) and incorporating OA principles into the business aspects of system acquisition (such as obtaining and exercising appropriate data rights), these obstacles will be less of an interest.

C. Naval Enterprise OA Development Schedule and Fielding Plan

DoN is implementing an overarching strategy to acquire combat systems using an OA business model approach which takes into account acquisition law, existing program delivery schedules, and supportability from both a financial and personnel resources perspective. The figure below outlines the OA development and related fielding plan for the Naval Enterprise. Individual Roadmaps for each of the Domains can be found in the Appendix to this report.

Enterprise OA Implementation Roadmap



Symbology and Acronym Legend


Significant program event


Opportunity for insertion of OA contract language


OA language inserted into contract(s)


OA component insertion


OA component available for insertion


Initial Operational Capability


Non OA configured platform


Platform partially configured to receive OA components


Platform configured to receive OA components


Elements of Combat Systems Objective Architecture


Convergence of Commonality among Combat Systems

Acronyms

ACB – Advanced Capability Build
ADD – Architecture Description Document
APB – Advanced Processing Build
ARCI – Acoustic Rapid COTS Insertion
AWS – Aegis Weapon System
BAMS – Broad Area Maritime Surveillance (Unmanned Air Platform)
C-21 – COMBATTS 21
CA – Contract Award
CAC2S – Common Aviation Command & Control System
CANES – Consolidated Afloat Networks & Enterprise Services
CBSP – Commercial Broadband Satellite Program
CDD – Capability Development Document
CDS – Common Display System
CNI – Common Network Interface
CPD – Capability Production Document
CPS – Common Processing System
CS OA – Combat System Objective Arch.
EFV – Expeditionary Fighting Vehicle
FRP – Full Rate Production
G/ATOR – Ground / Air Task Oriented Radar
GCCS-M – Global Command Control System – Maritime
H/W – Hardware
IABM – Integrated Architecture Behavior Model
ICMS – Integrated Combat Management System
IOC – Initial Operational Capability
IP – Internet Protocol
ISIS – Integrated Submarine Imaging System
ISNS – Integrated Shipboard Network System
JPALS – Joint Precision Approach and Landing System
JTRS – Joint Tactical Radio System
LLA – Long Lead Award
LRIP – Low Rate Initial Production
MIDS-JTRS - Multi-function Information Distribution System - Joint Tactical Radio System
MS B/MS C – Milestone Decision B/C
MUOS – Mobile User Objective System
NITES – Navy Integrated Environmental Support Sub-system
NMT - Navy Multi-band Terminal
OOC – On Orbit Capability
RCIP – Rapid Capability Insertion Process
RFP – Request For Proposal
SAT 1/2/3/4 OOC – Satellite #1/2/3/4 On Orbit Capacity
SDD – System Development & Demonstration
SSDS – Shipboard Self Defense System
S/W – Software
TC – Tactical Control
TI – Technology Insertion
TR – Technology Refresh
TSCE – Total Ship Computing Environment
WC – Weapons Control

IV. Challenges and Performance

1. The Department's Transformation Challenges

During EXCOMM V (October 2006), ASN(RDA) and the CNO called for development of an "OA Cultural Dashboard" with metrics that can be used to assess the Navy and Marine Corps progress in transforming the way it acquires its combat systems through OA. To provide a foundation for this dashboard, the OAET surveyed Navy and Marine Corps civilian and military in June 2007 to obtain their input on the internal and external barriers to implementing OA across the Naval Enterprise. Survey respondents identified the top internal barrier to OA implementation as the current flow of money to programs; the top external barrier is the loss of intellectual property rights (IPR). According to the survey, additional significant internal barriers are the lack of a defined reference architecture describing Enterprise and common standards/interfaces; a lack of OA understanding; the lack of resources; and an unwillingness of the Government to break existing contracts. Additional significant external barriers are the perceived company loss of market share; the perceived company loss of profit; the perceived company low return on investment; and a need for improved contractual requirements by the Department.

In order to address these challenges, the OAET has defined a Strategy based on four goals and related objectives, as previously discussed in Section III. These objectives are supported by work streams that are performed at either the OAET (Naval Enterprise) or Domain (PEO, Program or SYSCOM) level.

2. Measuring the Department's Performance to the Plan.

DoN is developing a set of metrics to track the Naval OA transformation. These metrics are being developed at the request of the CNO and ASN(RDA) and will reflect the overall maturity of DoN as its culture and business practices evolve. Development progress will be reported in subsequent reports.

V. Long Term Focus – Fiscal Year 2009 Planning

1. Assessing the Impact of OA on Development, Test, Procurement, Installation, and Operating and Support Costs

OA is a shift in the business paradigm for acquisition programs. OA helps Naval programs evaluate opportunities to acquire capability with a greater degree of flexibility to swap out the underlying mission computing infrastructure. The dividend from an OA investment is to allow programs to affordably keep abreast of the rapid refresh of commodity items while also providing a stable, open environment for innovation.

Because OA requires a course change in business and technical practices, successful incorporation of OA requires upfront investment in moving from closed, monolithic architectures to open, modular architectures. OA does not require contractors to "give up their data rights" but instead positions the Naval community to leverage its prior research and development investments. By publishing (and exercising control over) component interfaces, OA will allow proprietary components to be inserted into the overall system – where the business or performance case warrants. Offerors that use their own funds to develop proprietary components with improved performance can offer these to the Navy, Marine Corps or the integrator for use in the overall system. Under this approach, both large and small businesses are afforded an opportunity to compete at both the prime and subcontract level.

Each Domain differs in their "OA maturity" – in effect, how long they have incorporated OA business and technical principles in their acquisition models. As a general rule, OA development, test, procurement, installation, and operating and support cost can be estimated in several ways, but none are readily calculated in terms of cost awarded or money saved until the Department has had an opportunity to mature the processes involved in operating, maintaining and upgrading OA-based systems. Some of the factors that should contribute to a positive Return on Investment include: reduced Non-Recurring Engineering costs, reduced time to field upgrades, reduced T&E over system lifecycle, reduced risk; improved operator and system performance, greater Human Factor Integration, introduction of competition and innovation, elimination of total regression testing, and cost avoidance from software re-use across multiple platforms. As the Domains revise their business models at the program or project level, they obtain valuable insights regarding the costs and benefits of OA. Documenting these "lessons learned" and the tools and practices that lead to the realization of OA benefits is a critical effort for Fiscal Years 2008 and 2009. There are several examples that illustrate these benefits.

a. Submarine Domain

The Submarine Domain's Acoustic Rapid Commercial-off-the-Shelf Insertion (A-RCI) program is widely recognized as the Navy's most mature OA program. Based on studies in 2006, the development and production costs for the A-RCI model process were roughly $1/6^{th}$ of those costs for previous systems acquired under the traditional 'Mil Standard' model. Consequent operating and support costs for the A-RCI model were approximately $1/8^{th}$ of those for its predecessor systems. Fiscal Year 2009 efforts will be focused on alignment of three additional Non-Propulsion Electronic Systems submarine program business models with A-RCI and the AN/BYG-1 Submarine Combat Control System to maximize the OA benefits that are visible in test conduct events and new capability introduction.

b. Aviation Domain

The Aviation Domain's investment in Core OA for the E-2 Hawkeye platform will provide flexibility in computing infrastructure, with the benefit of greatly reduced cost to integrate and maintain software. The E-2 SIAP integration strategy leverages Core OA to reduce risk and cost. The Core OA is planned for the E-2C to mature the model and then be applied to future E-2D spirals. This open business model enhances the program's ability to rapidly develop, integrate, field, and sustain future mission capabilities.

The P-8A Maritime Patrol and Reconnaissance Aircraft program, which will replace the P-3C, expects to achieve significant cost avoidance over the life of the program, as well as a reduction in the time needed to field new and improved capabilities, as a result of building in an open architected system from inception. The P-8A's core mission computer and display subsystem architecture has already allowed the program to realize significant software savings in the baseline plan. This open architected system has facilitated the implementation of a COTS operating system, as well as offered the ability to realize a sizeable reduction in SLOC resulting from considerable software re-use in the weapons, data link, acoustic and radar subsystems. Another example where the use of COTS and OA have resulted in benefit to both currently fielded and developmental systems has been in the area of acoustic signal processing, where development costs have historically been large. The P-3C and P-8A acoustic subsystem contractors have elected to work collaboratively to take advantage of OA features that currently exist in the P-3C acoustic subsystem, and that are being designed into the P-8A. The resulting acoustic hardware and software design/implementation will yield overall decreased lifecycle costs for both the P-3C and P-8A, as well as field this much needed capability improvement in the current P-3C fleet several years before P-8A IOC. In this instance, the entire Naval Aviation Enterprise (NAE) will benefit greatly from the ability to take advantage of OA architecture and business practices.

NAVAIR and PEO, Tactical Air (PEO(T)) have developed an acquisition process improvement initiative in conjunction with the NAE Future Capabilities Cross Functional Team to address how OA requirements are developed and incorporated into Aviation Domain programs. The first step in this process is to provide training to the OPNAV requirements officers on the development and insertion of OA requirements into the Program's Capabilities Description Document or Operational Requirements Document. To make sure that the requirements officers, acquisition professionals, and the contractors are working together on OA, PEO(T) and NAVAIR are co-sponsoring a Lean 6-Sigma project to identify and promulgate a Key Open Sub-Systems (KOSS) process. The KOSS process outputs feed into program requirements, supports business case analysis, assists engineers in evaluating contractor key interfaces and provides a framework for building the Open Systems Management Plan, an important contractor deliverable identified in the *OA Contracts Guidebook*. This acquisition process improvement has the endorsement of the Director, Air Warfare Division (OPNAV N88).

NAVAIR is also integrating the OA assessment process into the normal course of program execution. NAVAIR will incorporate the OAAT version 1.1 questions into the

Systems Engineering Technical Review (SETR) process, a key element in the technical assessment of all Aviation Domain development and acquisition activities. This integration of the OAAT into the SETR means that all aviation programs will be evaluated for OA.

c. C4I Domain

The common theme throughout PEO C4I's Masterplan is the reduction, or necking down, of systems in every enclave across the C4I Domain and reusing the same terminal, network, computing environment for all functions and security levels. This approach is expected to reduce development, test, procurement, installation, training, and support costs. By moving C4I programs to a Common Computing Environment architecture with smaller, COI service capabilities riding on that infrastructure, PEO C4I intends to make the spiral development cycle much shorter for the Command & Control and Intelligence / Surveillance applications. In addition, by using an incremental build approach, mature technologies can be more rapidly fielded at a lower risk. In testing, PEO C4I intends to pursue a concept similar to the Defense Information Systems Agency's FDCE. PEO C4I intends to achieve a more rapid capability delivery strategy by engaging the warfighter, the requirements process, the testing community and the approval stakeholders much earlier in the development process. This approach reduces the requirement for stovepipe test events and migrates toward a more integrated, end-to-end testing environment. Additionally, C4I Applications will be fielded using a stream-lined testing process by demonstrating how they meet future CANES certification criteria, requiring minimum standards compliance, security, interoperability and operational suitability/effectiveness.

By taking advantage of innovative acquisition processes, such as the RDC, PEO C4I intends to make a significant paradigm shift in how certain C4I programs operate. Taking best advantage of emergent OA contract guidance and improved S&T transition plans will afford PEO C4I a more streamlined process and more rapid delivery of capability. As described in SECNAVINST 5000.2C, the RDC process "provides the ability to react immediately to a newly discovered enemy threat(s) or potential enemy threat(s) or to respond to significant and urgent safety situations through special, tailored procedures..." Currently, PEO SPACE has four RDC programs in development: Commercial Broadband Satellite Program; Expanded Maritime Interception Operations Wireless Reachback; Subnet Relay and High Frequency Integrated Protocol; and AIS.

d. Surface Domain

In the Surface Domain, the ability to isolate the hardware from the software programs and install COTS based systems was the first major step in achieving open systems. With the use of the Common Processing System and Common Display systems hardware sets, both being competitively procured and based on COTS technologies, the Navy will achieve common computing infrastructure on several ship classes where the contracting strategy allows it. By moving to software applications that run on several ship classes the Navy will avoid duplication of costs and lay the groundwork for future savings in software lifecycle maintenance. In the near future, Navy will coordinate the re-use and

sharing of Dual Band Radar and DDG-1000 software on the CVN-78 Combat System and the improved track server software on Aegis and SSDS. The sharing of software in the SHARE repository is a major enabler in this movement to open software, and almost all of our programs are now taking advantage of that approach for GPR software programs. Currently the Navy team is working to implement rapid capability improvement processes and conduct regular testing on experimental software builds. Improving the methods by which combat systems are tested and certified will be a major focus area over the next two years, with particular emphasis on saving costs when testing functionality that will field on multiple platform types. The implementation of the common architecture across Surface combat systems programs will start in Fiscal Year 2008 for the programs where there is contractual flexibility (Aegis and SSDS). The evolution from closed, monolithic to open, modular architectures cannot be done in a single step. Competitive procurements will be used to implement this strategy for software and for hardware on platforms where the acquisition strategy allows the use of GFE systems. Software architectures that span the Naval Enterprise will be reviewed in the future as DoN continues its implementation of OA in the Surface Domain.

The Surface Domain's SSDS is using test results from the LPD-17 to reduce follow-on testing requirements for other ships, including CVN-76, LHD-8, and LHA-6. LPD-17 is the first ship in the Capstone Enterprise Air Warfare Ship-Self Defense Test and Evaluation Master Plan (TEMP) evolution. The capture of LPD-17 test events within this Navy T&E enterprise approach contributes significant benefits in cost avoidance through model validation and the reduction of redundant testing. Data captured from these events will assist in the development and validation of models, enabling modeling and simulation that will assess the combat system's ability to meet specific effectiveness requirements such as the Probability of Raid Annihilation or P_{RA} (the ability of a standalone ship to defend itself against a specific attack scenario). These models will be re-used for cross-ship model migration and will include communication and combat system elements. This TEMP has been concurred with by Deputy Chief of Naval Operations for Integration of Capabilities and Resources (N8) and approved by Director, Test & Evaluation and Technology Requirements (N091).

As a result, the Probability of Raid Annihilation data acquired will contribute to Developmental Testing and support the resolution of Operational Testing Critical Operational Issues. The re-use and assessment of performance with models, as validated by LPD-17 testing, will reduce the amount of testing required for follow-on ships that use the same combat system variant. In addition, the Surface Domain plans to reuse this process for aspects of the LCS, DDG-1000, and CVN-78 (formerly CVN-21) programs. The underlying concept is that if a follow-on ship's combat system functionality has not changed from previous versions, and the models have already been validated with live fire testing, then the model would not change. If it has, then the model would be integrated with the new models to represent the change.

The Navy is currently developing the acquisition strategies, technical approaches, integrated schedules and fielding plans for Surface Domain warfare systems that will

further describe how OA principles are being implemented in these programs. Additional progress will be reported in subsequent quarterly Reports to Congress.

e. Space Domain

The Space Domain's Mobile User Objective System (MUOS) program pre-dates the fully defined OA initiative. However many aspects of its acquisition strategy were incorporated into the principles of OA and into the *OA Contracts Guidebook*. MUOS is being built with an unprecedented level of COTS components and software re-use. PEO Space Systems is evaluating the potential for further enhancing MUOS program alignment with OA principles, including the use of Software Reconfigurable Payloads (SRP), a concept to rapidly insert capability into satellite systems. SRP would allow the insertion of capabilities, such as enhanced anti-jam protection, after a satellite was launched. SRP could be embedded on a satellite, in its ground infrastructure or both. By decoupling satellite hardware from its software applications with SRP, the technical barrier to smaller vendors is removed, increasing competition and reducing development time.

2. The Department's acquisition strategy for leveraging competition in software development;

DoN is seeking to leverage competition for component and subsystem software development by both prime contractors and subcontractors to reduce costs and stimulate innovation. The Department's acquisition strategy for leveraging competition in software development is based on the core OA principles of modular design and design disclosure; use of open, published interfaces; and software and asset re-use; augmented by key OA tools such as Peer Reviews and software asset repositories such as SHARE. In addition, the understanding and acquisition of the necessary IPR for these assets, an emphasis on the use of COTS/Government-off-the-shelf (COTS/GOTS) software, and the potential use of shorter term contracts with options instead of long-term software development contracts are being considered as part of this strategy.

Software asset repositories such as SHARE enable the Navy and Marine Corps to increase competition because they facilitate design disclosure and asset re-use. By storing software assets for which the Department has GPR or less restrictive rights, repositories like SHARE enable other qualified DoD contractors to examine the contents and designs of these assets. When more companies and developers are provided access to software assets the Navy and Marine Corps use, a wider developer base with more knowledge of Naval systems is created, increasing the potential for competition when system component and subcomponent upgrades or extensions are needed. Enhanced competition will increase the supply of innovative solutions and lower prices.

As implemented by the Submarine Domain, the Peer Review process leveraged competition and innovation in software development. Participants in the Submarine Domain's Peer Review process were selected so that the membership (taken as a whole)

was unbiased and impartial. The Submarine Peer Review process was conducted as a "performance meritocracy." That is, candidate technologies were evaluated with common metrics and common data from real-world operations and those technologies – drawn from a diverse pool assembled through market research and surveys of the state of the practice. PMs, Fleet and OPNAV resource sponsors then collaborated to determine the next periodic delivery of improved capabilities.

On March 16, 2007 the CNO directed the Surface Domain to establish peer review processes within the Domain. Some Peer Reviews will examine and comment on the openness of architectures, systems, subsystems and components that are being considered for use in performance of a contract requirement. Peer Reviews may take many forms. One example of a Peer Review Group is a system working group. This group's focus is typically at the system level and has primary objectives of: 1) developing and overseeing the implementation of a coordinated set of plans and processes aimed at resolving specific system performance issues; and 2) identifying system shortfalls, selecting the best solutions from existing Government programs and establishing the proper feedback processes and tools to enable a data-driven, build-test-build approach to continuous sub-system performance improvement. While substantial effort has been spent, progress toward achieving this goal has been slow as a range of legal, contractual and programmatic issues related to the Surface Domain Business Model are being addressed.

The modular design of software components and use of open, published interfaces allows greater innovation through competition in software development and requires new acquisition models. When software is developed in a modular fashion with open, published interfaces, it becomes easier and cheaper to upgrade. The principle of modularity can be extended to support solutions that are usable across multiple platforms in a manner that reduces future requirements for large-scale new combat system development efforts.

As the Department's combat systems evolve to more modular approaches and functionalities become more open, they become candidates for open competition. Ideally, these competitions will be conducted among a large developer base familiar with the functionality of a component and the interfaces it uses to develop potential solutions. Therefore, pieces or modules can be upgraded on an as-needed basis, rather than having to wait for a larger percentage of non-modular software to become obsolete before it is more cost-effective to upgrade the entire system rather than mere components. The upgrade of a system as a whole rather than modules also favors an incumbent familiar with the entire system and reduces competition.

The length of contracts also affects the ability to reap greater benefits from competition in software development. In general, moving from large, long-term software development contracts, in which an incumbent has little fear of losing its business with the Naval community, to shorter term contracts with multiple vendors will enhance competition and increase agility in providing OA solutions. In the same manner, short-term contracts with option years enable the Department to either (1) reward highly performing contractors with additional years of software development work or (2) re-compete development work

when base years have expired, when improved technology solutions become available or when cyclical peer reviews indicate that the Department is not satisfied with the outcomes of work performed. Both options should allow the Department to fully leverage the benefits of competition on price, quality of work and innovative solutions.

Finally, DoN is also working to more completely understand the ramifications of its IPR choices with respect to software acquisition to help leverage competition in software development. By acquiring and exercising its GPR in the systems it acquires, where appropriate, the Department will be better able to affordably share software assets and designs with third-party developers and, therefore, increase competition in the market for NSS software.

VI. Summary

This first NOA Report to Congress provides a baseline report of the history and the accomplishments of the NOA program since its inception. OA efforts of the Naval Enterprise and each of the six Naval Domains were discussed. Activities of the two primary Naval Enterprise repositories (SHARE and NESI) were described and the specific Committee questions answered. Additional NOA progress will be reported in subsequent Reports to Congress.

Appendix 1 – List of Acronyms

ADNS	Automated Digital Network Systems
AFCEA	Armed Forces Communications and Electronics Association
AIS	Automated Identification System
API	Application Program Interfaces
A-RCI	Acoustic-Rapid Commercial-off-the-Shelf Insertion
ASN(RDA)	Assistant Secretary of the Navy (Research, Development, & Acquisition)
ASW	Antisubmarine Warfare
C2	Command and Control
CANES	Consolidated Afloat Network Enterprise Services
CNO	Chief of Naval Operations
COI	Community of Interest
COTS	Commercial-off-the-Shelf
DCNO	Deputy Chief of Naval Operations
DoD	Department of Defense
DoN	Department of the Navy
ESC	Electronic Systems Command
EXCOMMs	Executive Committee Meetings
FDCE	Federated Development & Certification Environment
GOTS	Government-off-the-shelf
GPR	Government Purpose Rights
IABM	Integrated Architecture Behavior Model
IPR	Intellectual Property Rights
IWS	Integrated Warfare Systems
KOSS	Key Open Sub-Systems
KSLOC	Thousand Source Lines of Code
LCS	Littoral Combat Ship
LOE	Limited Objective Experiment
MUOS	Mobile User Objective System
NAE	Naval Aviation Enterprise

NESI	Net-centric Enterprise Solutions for Interoperability
NITES Next	Next Generation Navy Integrated Tactical Environmental System
NOA	Naval Open Architecture
NPS	Naval Postgraduate School
NRL	Naval Research Laboratory
NSS	National Security Systems
OA	Open Architecture
OA/Fn	OA/FORCEnet
OAAT	Open Architecture Assessment Tool
OAET	OA Enterprise Team
OPNAV	Office of the Chief of Naval Operations
PEO	Program Executive Officer
PEO IWS	Program Executive Office for Integrated Warfare Systems
PEO(T)	Program Executive Officer, Tactical Air
PEO C4I	Program Executive Officer Command, Control, Communication, Computers and Intelligence
PM	Program Manager
RDC	Rapid Deployment Capability
S&T	Science and Technology
SCATT	Statement of Work, Contracts Data Requirements List And Tracking Tool
SETR	Systems Engineering Technical Review
SHARE	Software, Hardware Asset Re-use Enterprise
SIAP	Single Integrated Air Picture
SRP	Software Reconfigurable Payloads
SSDS	Ship Self Defense System
SYSCOM	System Commands
T&E	Test and Evaluation
TEMP	Test and Evaluation Master Plan
TI	Technical Instructions
XCOP	Extensible Common Operational Picture

Appendix 2 – Domain OA Roadmaps

1. Surface Domain
2. Air Domain
3. Submarine Domain
4. C4I Domain
5. Space Domain
6. USMC Domain

Symbology and Acronym Legend


Significant program event


Opportunity for insertion of OA contract language


OA language inserted into contract(s)


OA component insertion


OA component available for insertion


Initial Operational Capability


Non OA configured platform


Platform partially configured to receive OA components


Platform configured to receive OA components

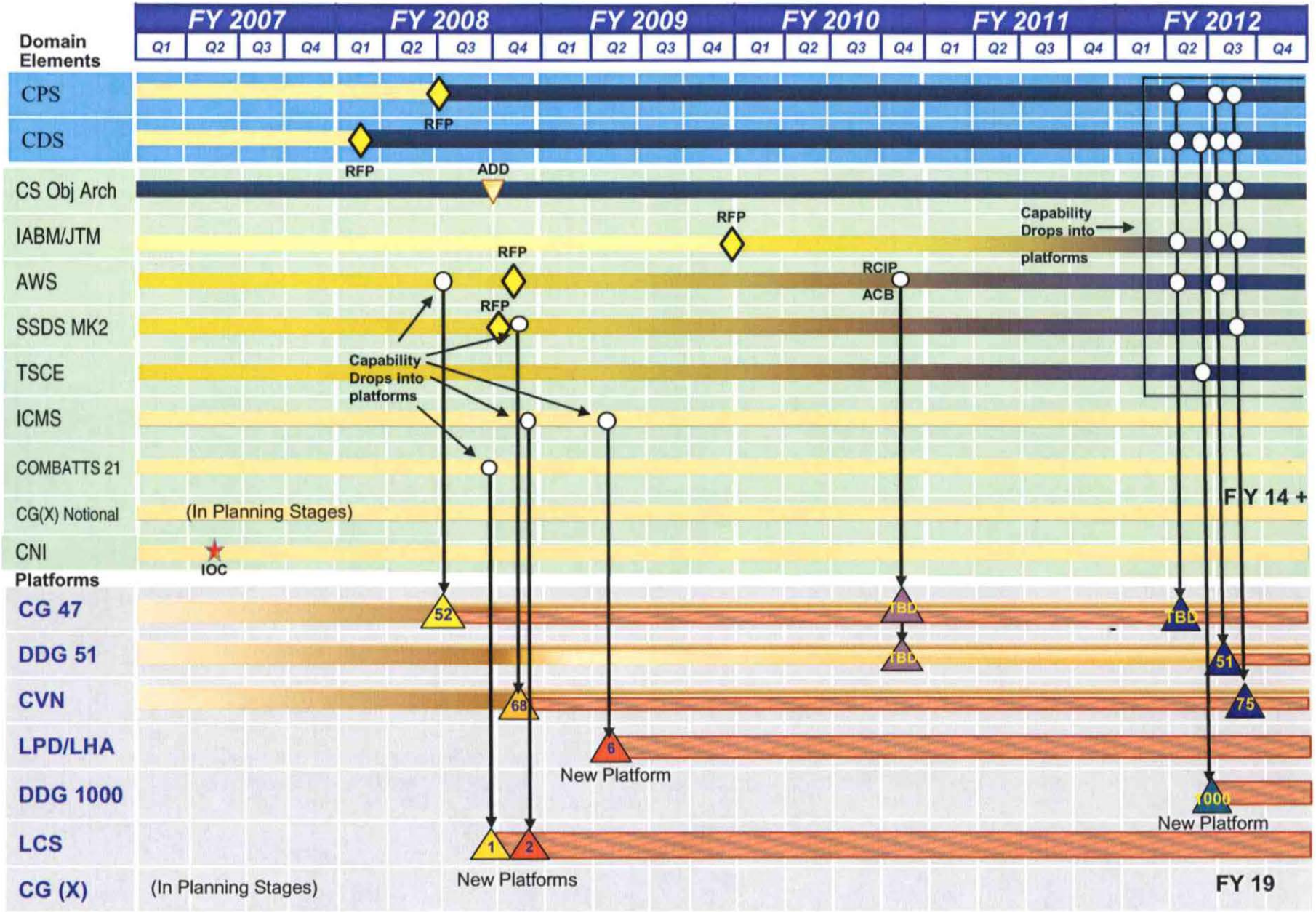

Elements of Combat Systems Objective Architecture


Convergence of Commonality among Combat Systems

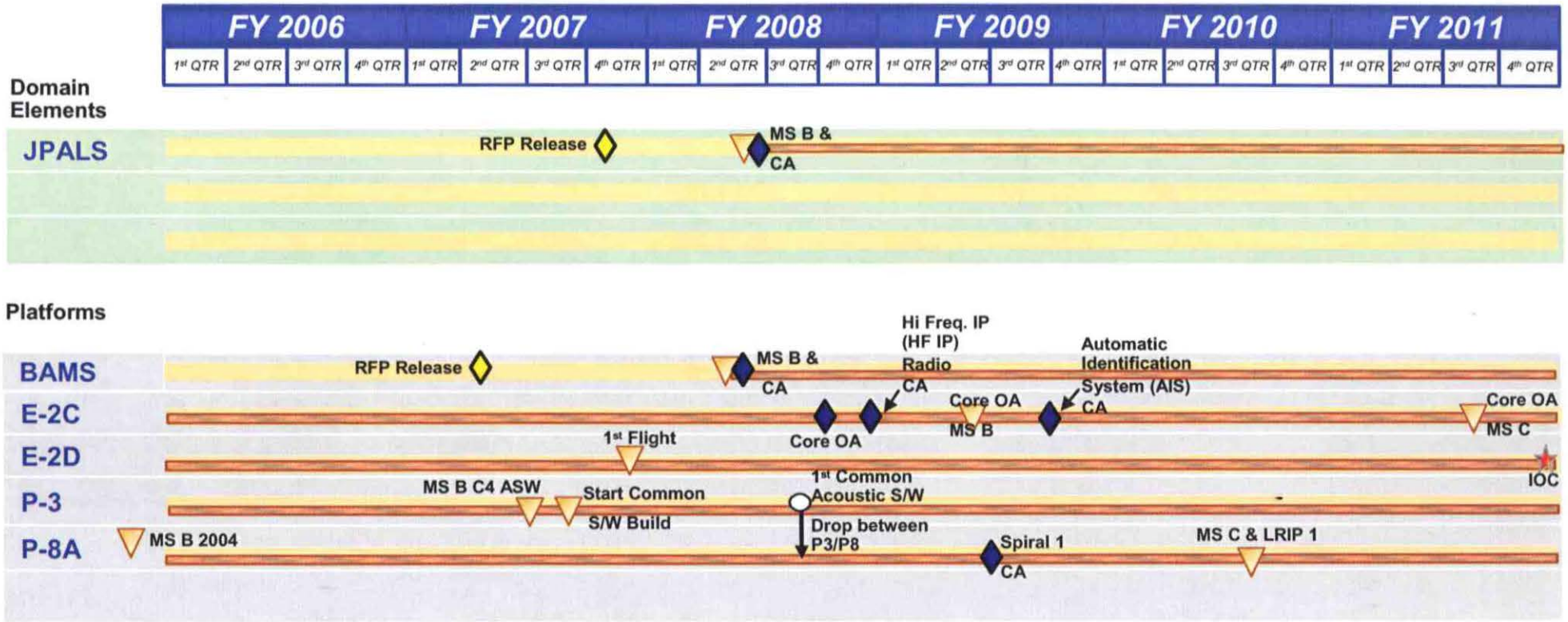
Acronyms

ACB – Advanced Capability Build
ADD – Architecture Description Document
APB – Advanced Processing Build
ARCI – Acoustic Rapid COTS Insertion
AWS – Aegis Weapon System
BAMS – Broad Area Maritime Surveillance (Unmanned Air Platform)
C-21 – COMBATTS 21
CA – Contract Award
CAC2S – Common Aviation Command & Control System
CANES – Consolidated Afloat Networks & Enterprise Services
CBSP – Commercial Broadband Satellite Program
CDD – Capability Development Document
CDS – Common Display System
CNI – Common Network Interface
CPD – Capability Production Document
CPS – Common Processing System
CS OA – Combat System Objective Arch.
EFV – Expeditionary Fighting Vehicle
FRP – Full Rate Production
G/ATOR – Ground / Air Task Oriented Radar
GCCS-M – Global Command Control System – Maritime
H/W – Hardware
IABM – Integrated Architecture Behavior Model
ICMS – Integrated Combat Management System
IOC – Initial Operational Capability
IP – Internet Protocol
ISIS – Integrated Submarine Imaging System
ISNS – Integrated Shipboard Network System
JPALS – Joint Precision Approach and Landing System
JTRS – Joint Tactical Radio System
LLA – Long Lead Award
LRIP – Low Rate Initial Production
MIDS-JTRS - Multi-function Information Distribution System - Joint Tactical Radio System
MS B/MS C – Milestone Decision B/C
MUOS – Mobile User Objective System
NITES – Navy Integrated Environmental Support Sub-system
NMT - Navy Multi-band Terminal
OOC – On Orbit Capability
RCIP – Rapid Capability Insertion Process
RFP – Request For Proposal
SAT 1/2/3/4 OOC – Satellite #1/2/3/4 On Orbit Capacity
SDD – System Development & Demonstration
SSDS – Shipboard Self Defense System
S/W – Software
TC – Tactical Control
TI – Technology Insertion
TR – Technology Refresh
TSCE – Total Ship Computing Environment
WC – Weapons Control

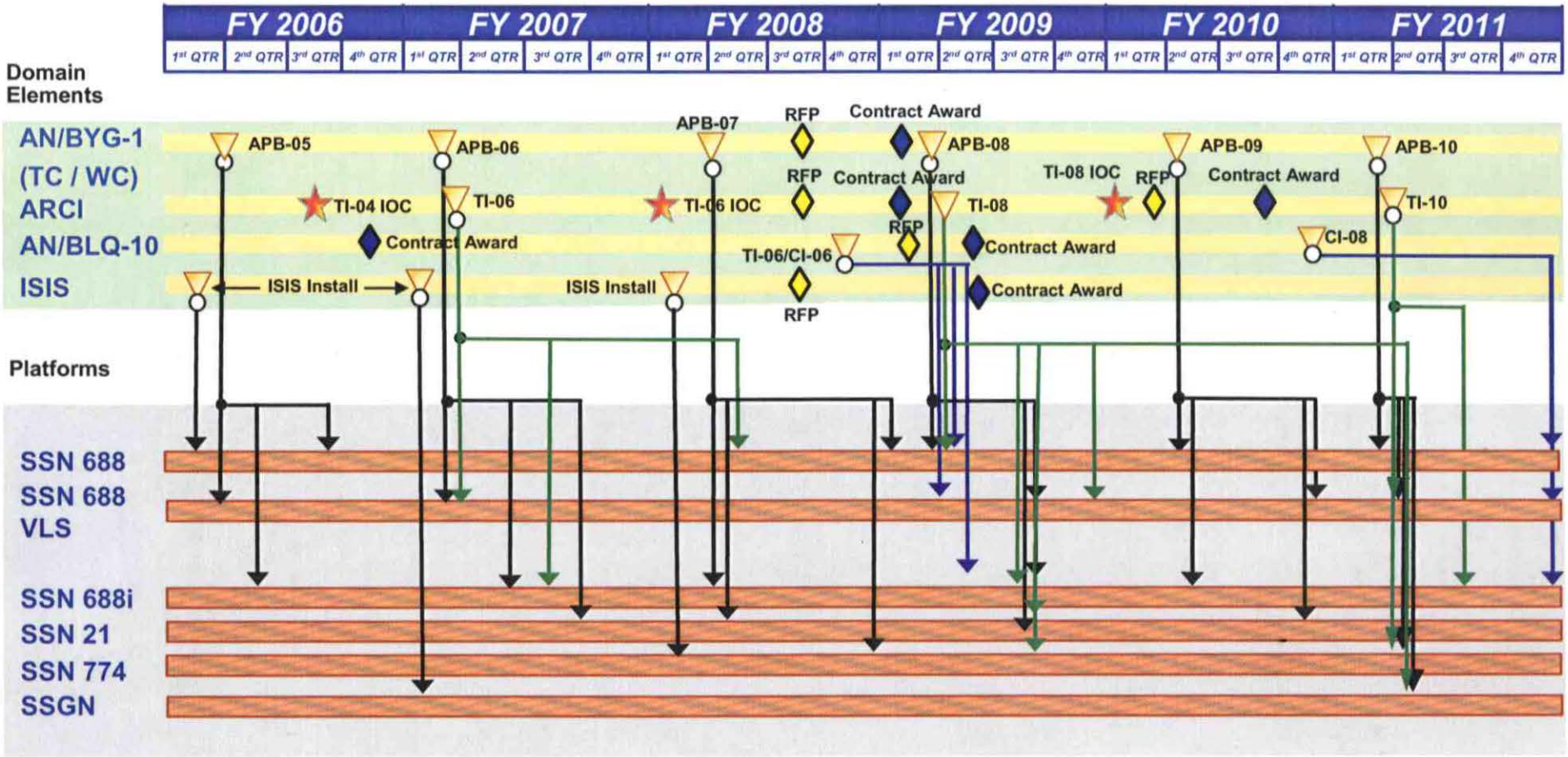
Surface Domain Roadmap



Air Domain OA Implementation Roadmap

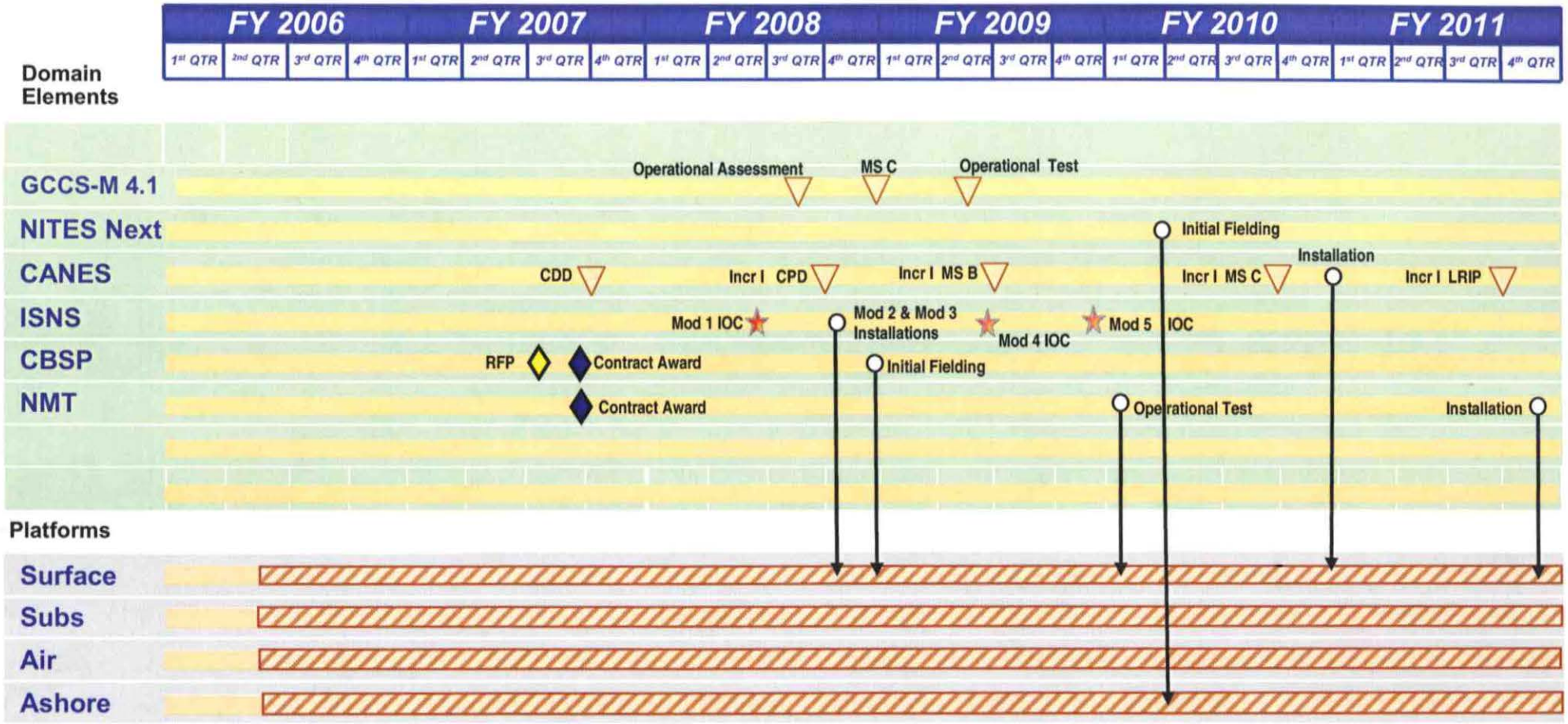


Submarine Domain OA Implementation Roadmap

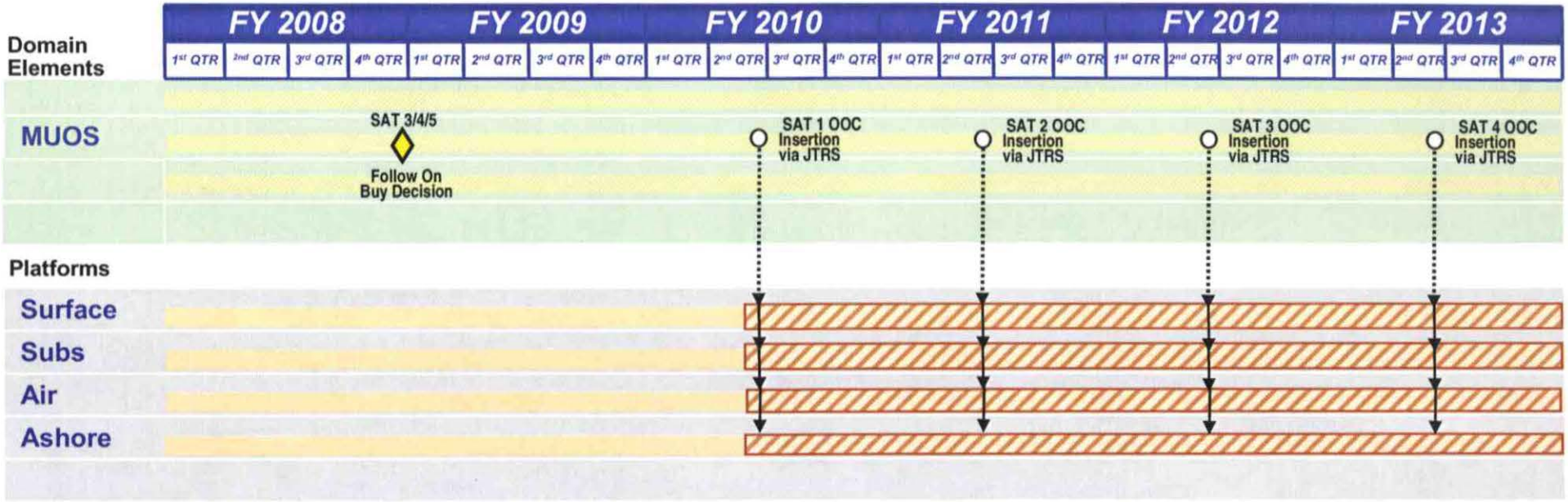


Note: AN/BYG-1 and ARCI use a common APB/TI cycle. Separation shown above is done for clarity.

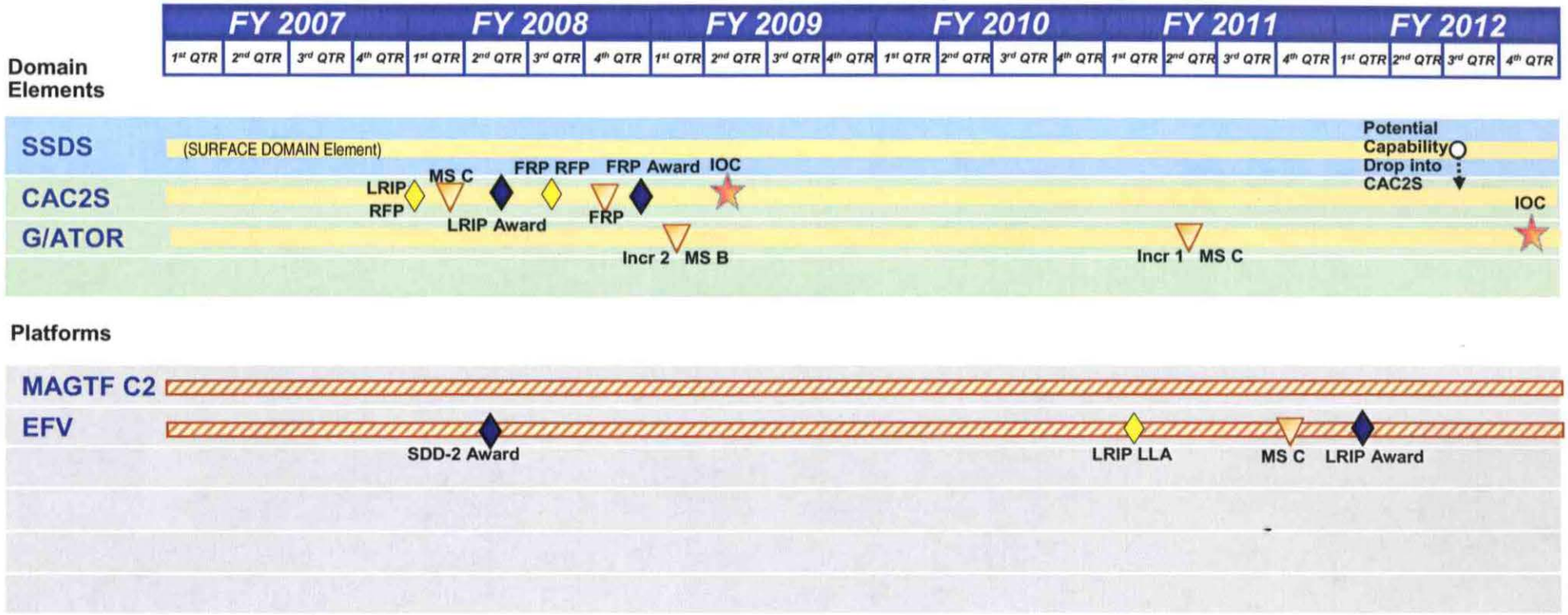
C4I Domain OA Implementation Roadmap



Space Domain OA Implementation Roadmap



USMC Domain OA Implementation Roadmap



THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 14, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year (FY) 2007 Senate Armed Services Committee Report 109-254 requested that the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In a letter of April 30, 2007, the Navy notified the Congress that this report would be submitted prior to seeking Milestone B approval for the LCS program. Over the past several months, the Navy has been reevaluating the acquisition strategy for the program. On January 26, 2008, the Defense Acquisition Executive approved an LCS Acquisition Strategy covering procurements of seaframes for FY 2008 and FY 2009. The enclosed report describes the revised Acquisition Strategy.

The Navy intends to conduct a limited competition with the incumbent suppliers for the FY 2008 and 2009 procurements, using fixed price incentive contracts. Procurement of these ships is vital to fill critical warfighting requirement gaps. Additionally, the Navy is focused on continuing through first-of-class construction challenges to complete LCS 1 and LCS 2. When these ships are delivered, the Department will be able to better evaluate their costs and capabilities, informing development of the acquisition strategy for the procurements in FY 2010 and beyond.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 14, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year (FY) 2007 Senate Armed Services Committee Report 109-254 requested that the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In a letter of April 30, 2007, the Navy notified the Congress that this report would be submitted prior to seeking Milestone B approval for the LCS program. Over the past several months, the Navy has been reevaluating the acquisition strategy for the program. On January 26, 2008, the Defense Acquisition Executive approved an LCS Acquisition Strategy covering procurements of seaframes for FY 2008 and FY 2009. The enclosed report describes the revised Acquisition Strategy.

The Navy intends to conduct a limited competition with the incumbent suppliers for the FY 2008 and 2009 procurements, using fixed price incentive contracts. Procurement of these ships is vital to fill critical warfighting requirement gaps. Additionally, the Navy is focused on continuing through first-of-class construction challenges to complete LCS 1 and LCS 2. When these ships are delivered, the Department will be able to better evaluate their costs and capabilities, informing development of the acquisition strategy for the procurements in FY 2010 and beyond.

A similar letter has been sent to Chairmen Inouye, Levin, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 14, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year (FY) 2007 Senate Armed Services Committee Report 109-254 requested that the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In a letter of April 30, 2007, the Navy notified the Congress that this report would be submitted prior to seeking Milestone B approval for the LCS program. Over the past several months, the Navy has been reevaluating the acquisition strategy for the program. On January 26, 2008, the Defense Acquisition Executive approved an LCS Acquisition Strategy covering procurements of seaframes for FY 2008 and FY 2009. The enclosed report describes the revised Acquisition Strategy.

The Navy intends to conduct a limited competition with the incumbent suppliers for the FY 2008 and 2009 procurements, using fixed price incentive contracts. Procurement of these ships is vital to fill critical warfighting requirement gaps. Additionally, the Navy is focused on continuing through first-of-class construction challenges to complete LCS 1 and LCS 2. When these ships are delivered, the Department will be able to better evaluate their costs and capabilities, informing development of the acquisition strategy for the procurements in FY 2010 and beyond.

A similar letter has been sent to Chairmen Inouye, Skelton, and Levin. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 14, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year (FY) 2007 Senate Armed Services Committee Report 109-254 requested that the Secretary of the Navy submit to the Congressional Defense Committees a report outlining the acquisition strategy for the Littoral Combat Ship (LCS) program.

In a letter of April 30, 2007, the Navy notified the Congress that this report would be submitted prior to seeking Milestone B approval for the LCS program. Over the past several months, the Navy has been reevaluating the acquisition strategy for the program. On January 26, 2008, the Defense Acquisition Executive approved an LCS Acquisition Strategy covering procurements of seaframes for FY 2008 and FY 2009. The enclosed report describes the revised Acquisition Strategy.

The Navy intends to conduct a limited competition with the incumbent suppliers for the FY 2008 and 2009 procurements, using fixed price incentive contracts. Procurement of these ships is vital to fill critical warfighting requirement gaps. Additionally, the Navy is focused on continuing through first-of-class construction challenges to complete LCS 1 and LCS 2. When these ships are delivered, the Department will be able to better evaluate their costs and capabilities, informing development of the acquisition strategy for the procurements in FY 2010 and beyond.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

FEBRUARY 2008

REPORT TO CONGRESS

LITTORAL COMBAT SHIP PROGRAM

ACQUISITION STRATEGY

Prepared by
Office of the Assistant Secretary of the Navy
(Research, Development and Acquisition)
Washington, DC 20350-1000

TABLE OF CONTENTS

1. REPORT REQUIREMENTS

2. EXECUTIVE SUMMARY

3. BACKGROUND

4. LCS ACQUISITION STRATEGY

5. FLIGHT STRATEGY

6. COMPETITION PLAN

7. COST CONTAINMENT STRATEGY

8. PROGRAM COSTS

9. ACQUISITION OF TWO DESIGNS

10. CONCLUSION

1. REPORT REQUIREMENT

The FY 2007 Senate Armed Services Committee Report 109-254 included the following request:

"…the committee directs the Secretary of the Navy to submit a report on the LCS program, no later than December 1, 2006 to the congressional defense committees. The report shall outline the Navy's acquisition strategy for the program, including the competition plan, the flight strategy, and the cost containment strategy for the program; contain a clear representation of all R&D and procurement costs for the total program; and assess the added life cycle costs associated with operation and support for two dissimilar flight 0 LCS designs."

Subsequent requests by the Navy submitted on November 16, 2006, January 30, 2007, and April 30, 2007, requested extensions of the submission date to February 5, 2007, May 4, 2007, and prior to Milestone B, respectively, in order to allow for the inclusion of final program acquisition strategy decisions.

2. EXECUTIVE SUMMARY

The Littoral Combat Ship (LCS) program is currently in active construction for first of class deliveries in FY 2008 and FY 2009. Following the cancellation of LCS 3 and 4, in April and November 2007 respectively, and the FY 2008 appropriation of a single seaframe, the Navy focused on near-term efforts to deliver LCS 1 and LCS 2 and to procure the FY 2008 and planned FY 2009 seaframes. The current Acquisition Strategy continues to focus on affordability, rapid fielding of capability to address critical Fleet operational gaps and competition as a means of cost control.

This report outlines near-term LCS procurement plans, detailing proposed competition strategies and tools to maintain cost control. The report focuses on the seaframe aspects of the LCS Acquisition Strategy. Further detail on the LCS Mission Package (MP) aspects will also be included in the Report to Congress on the LCS Mission Modules being submitted with the FY 2009 President's Budget request.

Major features include:

- Procurement of a single seaframe in FY 2008 and request for two additional seaframes in FY 2009.
- Contract awards will be based on a limited competition for quantity between the current LCS seaframe prime contractors of a Fixed Price Incentive Fee (FPIF) type contract for the FY 2008 ship with options for the additional two ships in FY 2009.
- The FY 2008 and FY 2009 ships will be designated as Flight 0+ and will include all existing approved engineering changes and essential redesigns stemming from lessons learned, along with any current improvements to construction or fabrication procedures.
- The Office of the Secretary of Defense (OSD) will conduct a Milestone A-prime interim defense acquisition review of the LCS program prior to procurement of the FY 2008 seaframe.

- Acquisition strategies for FY 2010 and outyear ships are under Navy review. OSD will conduct a Milestone B prior to FY 2010 procurement. The Navy and OSD will consider the questions of downselecting seaframes (or not) and the transition to full and open competition (or not) as part of the FY 2010 acquisition strategy deliberations.
- Navy remains committed to effective cost control and has improved contracting strategies and management practices to ensure program stability.

3. BACKGROUND

Several changes to the program plan have occurred since Milestone A and are reflected in the revised LCS Acquisition Strategy, approved by the Undersecretary of Defense for Acquisition, Technology, and Logistics (USD(ATL)) on January 26, 2008.

- In 2005, the Navy revisited the existing strategy of a new Flight of ships in FY 2008. A Navy decision was made to continue procurement of both Flight 0 seaframe designs at least through FY 2009, as the Draft Flight 1 Capabilities Development Document (CDD) spiral confirmed the validity of Flight 0 requirements, and both designs established their ability to meet those requirements with the use of modeling and simulation tools.
- Congress appropriated two additional ships in FY 2006. The Navy exercised two FY 2007 contract options awarding the LCS 3 contract option to Lockheed Martin (LM) on June 26, 2006 and LCS 4 contract option to General Dynamics (GD) on December 8, 2006.
- Cost growth on LCS 1-4 ships resulted in a detailed Navy assessment of program cost and structure. Negotiations to restructure the LM contract were unsuccessful, and on April 12, 2007, the contract option for construction on LCS 3 was terminated in part for convenience. As planned, the Navy was to continue the procurement of both Flight 0 seaframe designs, but at a reduced quantity.
- The strategy for LCS seaframe procurement beyond FY 2011 envisioned a Navy test, evaluation, and selection decision in FY 2009 of the most operationally suitable seaframe. A full and open competition was planned in FY 2010 for construction of the selected design for FY 2011 and beyond. However, the Navy retained the option to continue production of both seaframes should each present a unique operational advantage.
- The FY 2008 President's Budget request included changes to mission systems quantities. The Navy plans additional analysis in order to further refine the numbers and mix of MP systems. Changes are summarized as follows:
  - Reduction of one each of the following mission systems from the mine countermeasures (MCM) MP: Organic Airborne and Surface Mine Influence Sweep (OASIS), Airborne Mine Neutralization System (AMNS), Airborne Laser Mine Detection System (ALMDS), AQS-20A, and Rapid Airborne Mine Clearance System (RAMICS)
  - Deletion of the Advanced Deployable System (ADS) from the anti-submarine (ASW) MP
  - Addition of Maritime Security (MS) module (consisting of Visit, Boarding, Search and Seizure (VBSS) equipment, berthing and Rigid Hull Inflatable Boat (RHIB) cradles), as

part of the surface warfare (SUW) MP, to meet a new requirement for sustained Enhanced Maritime Interdiction Operations (EMIO), where naval teams board and search vessels. EMIO is the maritime component of the Global War on Terrorism and its mission is to deter, deny and disrupt the movement of terrorists and terrorist-related materials at sea. The MS modules will be procured beginning in FY 2010, to augment deployed surface warfare MPs.

- Because of continued cost growth on LCS 2 and 4, the Navy entered into negotiations with GD to restructure the construction contract to a FPIF type contract. These negotiations were ultimately unsuccessful and the contract for LCS 4 was terminated in part for convenience on November 1, 2007.
- Congress appropriated one seaframe in FY 2008, with report language directing that material and funding remaining from the termination of LCS 3 and 4 should be applied to the FY 2008 seaframe.
- The Navy was directed by the Defense Acquisition Executive to submit a revised Acquisition Strategy in January 2008 specifically outlining the program's plan for the FY 2008 procurement as well as possible procurements for the planned FY 2009 seaframes.

Navy Labs are integrating and delivering the first six MPs (two MCM, two ASW, two SUW). Subsequent to Milestone A and following a competitive solicitation, a contract was awarded to Northrop Grumman Integrated Systems in FY 2006 for MP integration. This long term acquisition strategy centralizes integration for all MPs, with Northrop Grumman assuming the integrator role with the seventh package.

4. LCS ACQUISITION STRATEGY

The previous LCS Acquisition Strategy, approved in May 2004, was based on the tenants of a modular and open system architecture, Cost As an Independent Variable design process, a rapid two year construction cycle to deliver capability to the Fleet, and continuous competition at all levels of the program to control costs. This strategy included an initial limited procurement of four Flight 0 seaframes and the development of independent Spiral Alpha focused MPs, followed by incorporation of lessons learned and immediate transition into a spiral development redesign for Flight 1 serial procurement beginning in FY 2008. This strategy resulted in the award of two seaframe contracts to GD and LM.

The two congressionally added seaframes in FY 2006 utilized the options for additional ships included with the original LCS contracts, leaving the Navy with no procurement/contract vehicle in place for FY 2007 and beyond. To support possible acceleration of Flight 1 into FY 2007, a preliminary Flight 1 CDD draft was developed. Upon evaluation by the Navy leadership it was determined that the Flight 1 CDD draft did not identify any fundamental changes in requirements. As a result, the Navy decided to continue procurement of Flight 0 seaframes at least through FY 2009.

Cost growth on LCS 1 through 4 resulted in a detailed assessment of program cost and structure. On January 12, 2007, a stop work order was issued against LCS 3. Following a program

assessment, the Navy entered negotiations with LM to restructure the contract to FPIF terms. On April 12, 2007, LM was issued a partial contract termination for convenience when negotiations to reach FPIF terms were unsuccessful. The Navy continued to closely monitor the cost trend on LCS 2, the GD lead ship. In September 2007, the Navy determined that the GD cost trend was very similar to that of LCS 1 and entered into discussions with the GD industry team to restructure the LCS 2 and 4 contract to FPIF terms. On November 1, 2007, LCS 4 was terminated for convenience when acceptable terms for a fixed price contract restructuring of the construction contract was deemed not achievable.

Based on ongoing program restructuring, the Navy requested and received congressional approval to reprogram FY 2007 SCN appropriations to fund cost increases on LCS 1 and 2. Congress appropriated a single seaframe in FY 2008 and included report language stating that material and funding remaining from the termination of LCS 3 and 4 should be applied to the FY 2008 seaframe. The Navy plans to procure an additional two LCS vessels in FY 2009 to meet the continuing urgent warfighting requirement.

The FY 2008 and FY 2009 ships, designated Flight 0+, will incorporate all existing approved engineering changes proposals, necessary redesigns of the water jets and/or propulsion tunnels and changes to production processes based on lessons learned. The strategy for procurement of the Flight 0+ seaframes is now based on a limited competition for quantity utilizing a FPIF type contract solicitation for a single ship in FY 2008, and options for an additional two seaframes in FY 2009. Award will be based on best value to the Government with the proposed price for FY 2009 ship(s) contingent on that proposed for the single FY 2008 ship, and the efficient use of existing procured material from the terminated LCS 3 and 4 contracts in the first seaframe of each design to be awarded under the FY 2008/2009 solicitation.

Additionally, Navy desires the opportunity to inform the procurement of Flight 0+ ships based on the results of trials and testing of the lead ships. To accomplish this, the successful FY 2008 offeror will not proceed through Production Readiness Review until their lead ship has successfully completed Builders Sea Trials and any lessons learned are incorporated into their proposed integrated master schedule. Any changes for Flight 0+ as a result of sea trials will be minimized to those which must be addressed for safety and operability.

These decisions have been incorporated in a revised LCS Acquisition Strategy which was approved by USD(ATL) on January 26, 2008. OSD will conduct a Milestone A-prime interim defense acquisition review of the LCS program prior to procurement of the FY 2008 seaframe.

Acquisition strategies for FY 2010 and outyear ships are under Navy review. OSD will conduct a Milestone B prior to FY 2010 procurement. The Navy and OSD will consider the questions of downselecting seaframes (or not) and the transition to full and open competition (or not) as part of the FY 2010 acquisition strategy deliberations.

This report focuses on the seaframe aspects of the LCS Acquisition Strategy. Further detail on the LCS MP aspects will also be included in the Report to Congress on the LCS Mission Modules being submitted with the FY 2009 President's Budget request.

5. FLIGHT STRATEGY

The LCS program was established as a spiral development program to maximize early delivery of capability to the Fleet while optimizing the design over subsequent procurements. The modular open system architecture used for the LCS design resulted in the independent development of seaframes and MPs that integrate across a controlled interface specification to ensure complete interoperability. This allows the relatively rapid change in technologies and threats associated with the modular MPs to be continuously improved through annual spiral upgrades without major design impacts to seaframes. The result is a program that minimizes the risks of a highly interdependent system of systems by decoupling seaframe procurement from MP procurement, and allows continous cost efficient delivery of state-of-the-art capability to the warfighter via new MPs upgrades.

As outlined above, the baseline program consisted of limited production of four Flight 0 ships (two of each design), and was modified to two seaframes. LCS 1 and 2 will be used for design stabilization and as data collection assets to facilitate future acquisition decisions. Upon completion of post delivery industrial availabilities and necessary testing and system certification, LCS 1 and 2 will be made available to the Fleet for operational tasking.

Flight 0+ ships will include all existing approved engineering changes and essential redesigns stemming from lessons learned with any current improvements to construction or fabrication procedures. FY 2010 and follow ships are under review.

6. COMPETITION PLAN

The Navy will competitively award a FPIF contract in FY 2008 for a Flight 0+ seaframe, with options for two additional seaframes in FY 2009, in a limited competition for quantity as discussed in Section 4 of this report. Offerors will be tasked and incentivized to use remaining material from the terminated LCS 3 and 4 contracts to the greatest extent possible. Incentive fee criteria will be identified for on, or ahead of, schedule accomplishment of various production and testing accomplishments that support meeting critical ship construction/test events, as well as cost and schedule performance.

7. COST CONTAINMENT STRATEGY

The Navy has worked diligently with both industry teams to identify and evaluate program cost, schedule and technical risk, and the LCS program office is being resourced to provide the required oversight for effective management of the LCS program. After an extensive program assessment, the Navy has developed an executable program plan that adjusts the acquisition profile, ship cost estimates, budgets and schedules, while providing resources for effective management of cost, production and technical risk, to deliver ships to the Fleet to support the urgent warfighting requirement.

The Flight 0+ and follow ships are expected to be competitively awarded using fixed price-type contracts. Configuration baseline stability and minimizing future changes will be fundamental tenants of the program.

A foundation for success for execution of the FY 2008/2009 procurements will be an effective cost and scheduling performance monitoring effort. Earned Value Management (EVM) and the Integrated Baseline Review (IBR) are key tenets of these cost control efforts. These efforts will include the lessons learned from LCS 1-4, and the recommendations of the Naval Inspector General and Naval Audit Service from their reviews during the program assessment in 2007.

EVM is a key integrating process in the management and oversight of acquisition programs, used to monitor performance on cost, schedule, and work scope aspects of contracts. The LCS program continues to implement DoD EVM requirements on applicable contracts, subcontracts and other agreements as prescribed in DoD Instruction 5000.2, the Defense Acquisition Guidebook, and the EVM Implementation Guide. The program continues to improve EVM Systems reporting to better monitor cost and schedule performance of applicable LCS contracts.

Execution Cost Controls

While the elements embedded in the LCS Acquisition Strategy are necessary enablers for effective cost control, effective program management is also critical to achieve successful cost control measures. Since the LCS program review, the following management practices have been improved to better monitor cost performance.

Change Control: Two of the most frequently cited reasons for acquisition cost growth are changing program requirements and Government directed design changes. The LCS program has proactively addressed each of these through continuous efforts to sensitize program stakeholders to the costs of requirements changes. At the same time, flexibility inherent in the modular LCS design provides for evolution of MP requirements without requiring changes to the seaframe.

The LCS program has implemented a disciplined change control process intended to eliminate non-essential design changes and allow only those change proposals that are critical to the success of the program and meet limited criteria for approval. The LCS Configuration Control process manages, controls and documents changes in the configuration of the seaframe. Only those changes due to Government responsible deficiencies meeting the following criteria are considered for implementation on the other seaframe design, as per the December 4, 2006 policy of the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN RDA) on Acquisition Program Cost Growth; Management of Engineering Change Proposals:

- Safety (personnel or equipment)
- Contractual defects (correction of defective specifications or Government furnished equipment or information)
- Unavailable contractor furnished equipment (CFE) (form, fit, and function replacement of Government specified CFE or components that are no longer available)

- Testing or trial deficiencies
- Affordability (reduced cost or no cost changes)

Program Management Offices: The LCS Program Office (PMS 501) management structure consists of a PM, a Deputy PM and supporting staff with the responsibility, authority and accountability necessary for program execution. As a result of the Navy analysis of cost growth on LCS 1-4, program office staffing has been increased to provide more Government oversight. This includes increases to the Supervisor of Shipbuilding staffs at both building yards where a PM Representative conducts the day-to-day management of seaframe construction. The PM manages cost, schedule and performance objectives and reports regularly to Navy and Defense Department leadership.

Additionally, the PM is supported by the following Integrated Product Teams:

- Life Cycle Cost/Performance
- Acquisition Strategy
- Test and Evaluation
- Critical Technology
- Integrated Logistics Support

8. PROGRAM COSTS

Program Acquisition Cost

The Government Accountability Office (GAO) completed a report on cost growth in Navy shipbuilding programs in February 2005[1], examining causes and mitigation approaches for unplanned increases. One of the principle recommendations of the report was that shipbuilding programs should more fully incorporate risks associated with cost estimates, observing that:

> "Navy practices for estimating costs, contracting, and budgeting for ships have resulted in unrealistic funding of programs, increasing the likelihood of cost growth. Despite inherent uncertainties in the ship acquisition process, the Navy does not account for the probability of cost growth when estimating costs."

This GAO report, the root causes and budgeting principles behind it, and the revised LCS Acquisition Strategy informed the development of the current LCS program estimates.

The President's Budget request for FY 2009 LCS program acquisition costs are identified in Table 1. The LCS FY 2009 Budget request includes RDT&E, SCN, O&MN, OPN and WPN funding. RDT&E funds are being used for seaframe system development, MP development and procurement of four MPs, in addition to the procurement of the lead ship from each industry team. SCN funds procure all follow ships. MP procurement subsequent to the first four packages funded using OPN and WPN. Table 1 reflects the acquisition costs for the LCS

[1] Government Accountability Office, "Defense Acquisitions: Improved Management Practices Could Help Minimize Cost Growth in Navy Shipbuilding Programs," GAO-05-183, February 2005.

program with the exception of the costs for Vertical Take Off and Landing Tactical Unmanned Aerial Vehicles and H-60s helicopters that are non-LCS specific assets procured using APN funding managed by the Naval Air Systems Command. Based on the cost growth identified on LCS 1 through 4, and partial termination of LCS 3 and 4, the Navy has developed revised estimates for the program going forward.

The Navy appreciates Congress' consideration of the Navy's request to increase the LCS cost cap from $220 million to $460 million end cost, as per Section 125 of the FY 2008 National Defense Authorization Act (Public Law 110-181). However, execution within the cost cap will be a challenge as the initial Navy estimate of $460 million end cost was predicated on two ships being appropriated in FY 2008. This would have allowed sharing of some program costs between seaframes. The $460 million estimate was the Navy's most likely estimate for two FY 2008 seaframes. The limitation of Government liability clause, and language prohibiting adjustments to the cost cap for economic inflation, will jeopardize the Navy's ability to award future ships in compliance with the cost cap language as currently proposed.

Table 1: LCS Program Acquisition Costs and Quantities

PB09, $M	Prior	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	Total
RDTEN	1230.3	663.9	304.1	371.0	281.4	138.9	168.4	116.4	3274.4
Quantity	2	-	-	-	-	-	-	-	2
SCN	500.0	93.0	337.1	920.0	1379.5	1379.6	1839.9	2760.2	9209.3
Quantity	2[1]	-	1	2	3	3	4	6	19
OPN MP	36.3	78.7	-	137.2	234.7	242.2	252.3	227.4	1208.8
WPN MP	-	-	-	2.8	24.5	47.4	45.3	10.7	130.7
OMN MP			8.4	13.6	2.3	2.7	3.3	3.3	33.6
OMN Seaframe	-	-	28.5	34.8	47.2	30.0	30.4	30.3	201.2

*** Funding levels include congressionally approved reprogrammings.**
Note 1: Prior Year SCN Quantities do not reflect termination of LCS 3 and LCS 4.
Quantities shown are for LCS seaframes

Operation and Support Cost

The Operation and Support (O&S) cost estimate will be updated in support of Milestone B Program Life Cycle Cost Estimate requirements, prior to FY 2010 procurements. This O&S estimate will capture costs for LCS from delivery until disposal and will be tailored to the specific requirements and estimated LCS operational tempo. Manning will be based on the current manning concept for LCS and estimated by the actual pay grades of the crew. Training costs will include traditional sailor training as well as specific training required for the "Train to Qualify" requirements unique to the LCS operating concept. Additional training, infrastructure and support will be estimated for homeport proficiency training, including LCS Shore Based

trainers for both Flight 0/0+ designs. Maintenance and support infrastructure and recurring costs will include Maritime Support Detachment effort and LCS specific organic, intermediate and depot maintenance level costs. Additional maintenance and support costs to be captured include increased In-Service Engineering Agents (ISEA), Configuration Management and planning costs for dual design (program of record), as well as systems that are not currently in the U.S. Navy inventory.

9. ACQUISITION OF TWO DESIGNS

As planned, and due to the urgent need to fill critical warfighting gaps, the Navy will continue the procurement of Flight 0+ designs in FY 2008 and FY 2009 with a limited competition for quantity between the two incumbent suppliers.

The Navy has performed an assessment of the cost implications associated with continuing to carry two designs forward or down-selecting to one design. This assessment included acquisition costs as well as costs associated with manpower, training, fuel, maintenance, configuration management, planning and engineering, supply support, and other factors.

For O&S costs, the potential trade space is about 35 percent of total life cycle costs, with only a portion of these costs impacted by a single design. The majority of O&S cost – fuel (40 percent), ship maintenance (25 percent) and manning (25 percent) – will be minimally affected by dual, versus single, design.

- Fuel costs depend on the ship efficiency and not the number of different variants in operation.
- Likewise with manning costs, both designs will be operated with a 40 person crew (four crews to three ships) regardless of the number of designs in the fleet.

The potential savings, i.e. the trade space, results from the training, configuration management and ISEA/industry support required for both designs.

- Configuration management costs are included in all maintenance and support costs (estimated per ship per year) to track, trace and manage parts and repairs.
- Training savings will come from the infrastructure and support of the training pipe-lines, which are dependent on the number of designs.
- Similarly, ISEA/industry and maintenance planning are estimated by design per year.

However, should the Navy eventually down-select to one design and the unique ships are kept in the U.S. Navy inventory, these training and ISEA/industry costs will still be required to support both designs in the Fleet.

Overall, the areas that are impacted by supporting multiple designs account for 10 percent of the total O&S cost. Removing the losing design from the Navy inventory after a potential future downselect can achieve potential O&S savings of approximately six percent. However, if the unique design ships are replaced through additional future acquisition of the down-selected seaframe to maintain overall force structure quantities, then the best case scenario (earliest implementation) provides only a break even result on total life cycle costs due to the additional procurement cost.

Acquisition strategies for FY 2010 and outyear ships are under Navy review. OSD will conduct a Milestone B prior to FY 2010 procurement. The Navy and OSD will consider the questions of downselecting seaframes (or not) and the transition to full and open competition (or not) as part of the FY 2010 acquisition strategy deliberations. Any such decisions will consider the latest estimates of life cycle costs, including both procurement costs (including consideration of competitive options) and operation and support costs. Operational requirements and assessments of operational effectiveness, as demonstrated by LCS 1 and 2, would also be a key consideration of future decisions.

10. CONCLUSION

To date, the LCS program has proven to be both revolutionary in design and acquisition approach, yet has faced challenges typical in the procurement of a new class of ships. As the program moves forward into production of the Flight 0+ designs, it is anticipated that risks inherent to first-of-class shipbuilding programs will diminish. The revised and now approved LCS Acquisition Strategy incorporates lessons learned and is based on competition, fixed-price contract awards, configuration control and program stability. FY 2010 and outyear LCS acquisition will be determined at Milestone B, which will be conducted prior to FY 2010 procurements.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 13, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter provides the Department of the Navy response regarding military to civilian conversions within the Navy Medical Department as required by the Fiscal Year (FY) 2007 National Defense Authorization Act (Public Law 109-364, Section 742). As required by law, detailed reports of the 215 billets converted to civilian positions in FY 2006, 689 billets programmed for conversion in FY 2007 and 1,036 billets programmed for conversion in FY 2008 are enclosed.

Based on our cost, quality and access experience with FY 2005 and FY 2006 conversions to date, I recertify that the FY 2006 conversions did not increase cost while access and quality were maintained.

Based on our current analysis of fully burdened governmental personnel costs, I certify that 559 of the 689 FY 2007 and 791 of the 1,036 FY 2008 military positions programmed for conversion are achievable without increasing cost or decreasing access and quality. We will continue to evaluate the remaining 130 conversions for FY 2007 and the remaining 245 conversions for FY 2008 to determine if they will be cost effective or impact access and quality of care.

Consistent with the requirements of the FY 2006 National Defense Authorization Act (Section 744) and FY 2007 National Defense Authorization Act (Section 742), 130 FY 2007 military positions and, if necessary, 245 FY 2008 military positions will be restored as expeditiously as possible.

I will continue to monitor these conversions and will promptly notify you should any of this information change. A similar letter has been sent to Chairman Skelton. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosures:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 13, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

This letter provides the Department of the Navy response regarding military to civilian conversions within the Navy Medical Department as required by the Fiscal Year (FY) 2007 National Defense Authorization Act (Public Law 109-364, Section 742). As required by law, detailed reports of the 215 billets converted to civilian positions in FY 2006, 689 billets programmed for conversion in FY 2007 and 1,036 billets programmed for conversion in FY 2008 are enclosed.

Based on our cost, quality and access experience with FY 2005 and FY 2006 conversions to date, I recertify that the FY 2006 conversions did not increase cost while access and quality were maintained.

Based on our current analysis of fully burdened governmental personnel costs, I certify that 559 of the 689 FY 2007 and 791 of the 1,036 FY 2008 military positions programmed for conversion are achievable without increasing cost or decreasing access and quality. We will continue to evaluate the remaining 130 conversions for FY 2007 and the remaining 245 conversions for FY 2008 to determine if they will be cost effective or impact access and quality of care.

Consistent with the requirements of the FY 2006 National Defense Authorization Act (Section 744) and FY 2007 National Defense Authorization Act (Section 742), 130 FY 2007 military positions and, if necessary, 245 FY 2008 military positions will be restored as expeditiously as possible.

I will continue to monitor these conversions and will promptly notify you should any of this information change. A similar letter has been sent to Chairman Levin. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosures:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Member

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable Roger F. Wicker
Ranking Member

OSD 15300-07
10/2/2007 1:41:07 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Ranking Member

OSD 15300-07
10/2/2007 1:40:48 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable David R. Obey
Chairman, Committee On Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable Jerry Lewis
Ranking Member

OSD 15300-07
10/2/2007 1:40:50 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable John McCain
Ranking Member

OSD 15300-07
10/2/2007 1:40:52 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable Ike Skelton
Chairman, Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515-6065

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable Duncan Hunter
Ranking Member

OSD 15300-07
10/2/2007 1:40:54 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable Ted Stevens
Ranking Member

OSD 15300-07
10/2/2007 1:40:56 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable C. W. "Bill" Young
Ranking Member

OSD 15300-07
10/2/2007 1:41:03 PM

DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

OCT - 1 2007

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In accordance with U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110-28), Chapter 5, enclosed is the end-strength growth stationing plan to support the requirements of the United States Marine Corps.

Similar letters have been sent to the appropriate congressional committees.

Enclosure:
As stated

cc:
The Honorable Kay Bailey Hutchison
Ranking Member

OSD 15300-07
10/2/2007 1:41:04 PM

REPORT ON PRESIDENT'S DIRECTED UNITED STATES MARINE CORPS GROW THE FORCE INITIATIVE IN SUPPORT OF THE NATIONAL DEFENSE STRATEGY OF THE UNITED STATES

September 2007

TABLE OF CONTENTS

TABLE OF CONTENTS II
REQUIREMENT III
BACKGROUND IV
CONGRESSIONAL RESPONSE 1
Process 1
Baseloading and Unit Overview 1
Military Construction Plan 5

REQUIREMENT

The Conference report (Report 110-107) to accompany H.R. 1591 requires the Secretary of Defense to provide Congress a detailed stationing plan on the Marine Corps' Grow the Force initiative prior to the obligation and expenditure of $324.3 million of funds made available under the heading Military Construction, Navy and Marine Corps to include the following for the entire 27,000-Marine increase:

1. The new units to be created and the number of Marines in each such unit.
2. The specific increases in the number of Marines to existing units.
3. The installations where each new unit or augmented unit will be located.
4. The estimated dates of initial operational capability and full operational capability of each new unit.
5. The types of temporary and permanent facilities required (including family housing) and the estimated cost.
6. Any other pertinent information.

BACKGROUND

Upon reexamination of the Marine Corps' structure and manning relative to its expected long term mission needs, President Bush approved a permanent end strength increase of 27,000 Marines, from the base of 175,000 to 202,000 Marines. This increase will enhance the capability of the Marine Corps to conduct the full spectrum of contingency operations from warfare to military operations other than war, improve the posture of the Marine Corps forces for the Long War, and relieve strain on those superb Americans who have volunteered to fight the Nation's battles. The additional end strength will result in the equivalent capability of three, fully effective Marine Expeditionary Forces (MEFs) to meet the Nation's demand for the Marine Corps "to be most ready when the Nation is least ready." The target date for achieving this end strength is FY 2011.

To ensure that these Marines have adequate facilities in which to live and work, the President's FY 2007 Supplemental request included $324 million to accomplish critical path infrastructure projects. This effort is continued with the President's FY 2008 Global War on Terror (GWOT) request of $169 million and the President's FY 2008 budget request of $605 million. In all, it is estimated that the infrastructure requirement to support the President's directive will total $7.0 billion, including military construction, family housing, and the acquisition of temporary facilities. The balance of these projects will be aggressively programmed in future years to support the FY 2011 target date for a Corps of 202,000 Marines.

On September 11, 2001 the Marine Corps' permanent end strength was 172,600. This was increased to 175,000 in FY 2003 to support the Global War on Terror and establishment of the 4th Marine Expeditionary Brigade / Anti-Terrorism Battalion. In FY 2004, the Marine Corps procured facilities and a partial table of equipment for two additional infantry battalions (1/9 and 2/9), however the end strength associated with 1/9 and 2/9 was not realized due to the establishment of the Marine Special Operations Command (MARSOC) in FY 2005, as directed by the Secretary of Defense. The force structure changes for MARSOC were achieved within the then permanent force level of 175,000 Marines through the reduction of lower priority units, to include 1/9 and 2/9, and the elimination of functions that were no longer required or could be accomplished by civilians or contractors. The end strength associated with 1/9 and 2/9 has been included in the 27,000 increase.

CONGRESSIONAL RESPONSE

Process

The Marine Corps' force structure requirements for 27,000 additional Marines were developed through a structured planning process to examine Marine Corps capabilities and capacities to support the Combatant Commanders and balance our Marine Air Ground Task Forces in order to be postured for the future. The planning process addresses Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) resulting in the identification of specific units, locations and operational capability required over the next four years.

Subsequent to the President's January 2007 announcement of an increase of 27,000 Marines, the DOTMLPF group continued to meet through Spring 2007 in order to further refine the Marine Corps' future requirements and planning. The results of the DOTMLPF are reflected in the Future Requirements section of this report, but do not impact either the enacted FY GWOT Supplemental or the FY 2008 President's budget request.

Baseloading and Unit Overview

Table 1-1 summarizes the end strength increase by base over time. Tables 1-2 and 1-3 provide unit level detail. Table 1-2 identifies existing units and their locations, the number of Marines that will augment these units, and the dates these units will be augmented. Table 1-3 identifies new units, their locations, the number of Marines to be employed by these units and their estimated Initial Operational Capability (IOC) and Full Operational Capability (FOC) dates.

Baseloading

Installation	Existing Baseloading	FY 06 ES	FY 07-FY09 ES	FY10-FY11 ES	Total ES Increase
MCB Camp Lejeune, NC	142,276	1,473	4,872	1,065	7,410
MCB Camp Pendleton, CA	113,604	861	1,388	889	3,138
MAGTFTC Twenty-nine Palms, CA	23,062	488	705	980	2,173
MCAS Camp Pendleton, CA	4,508	5	270	684	959
MCAS New River, NC	13,059	5	335	1,336	1,676
MCAS Cherry Point, NC	51,507	5	1,110	61	1,176
MCAS Miramar, CA	79,848	5	289	307	601
MCB Hawaii, HI	35,663	208	233	57	498
MCAS Beaufort, SC	19,051	5	0	246	251
MCCDC Quantico, VA	44,277	0	101	0	101
MCAS Yuma, AZ	15,106	5	92	0	97
OCONUS	43,511	175	209	103	487
Various MARFOR HQ		490	24	0	514
Non-Marine Corps Locations		425	1,915	828	3,168
Prisoners, Patients, Trainees, Transients		850	2,478	1,423	4,751
Total	**585,472**	**5,000**	**14,021**	**7,979**	**27,000**

1. Baseloading includes officer, enlisted, civilian, family members and retirees. Baseline begins from the 175,000 authorized endstrength. (Source *FY06 Facilities Support Requirements (FSR)*, 26 May 2006)

Table 1-1 Baseloading

Existing Unit Plan

FY	Unit	New or Existing	Location	Officer	Enlisted	Total End Strength	IOC	FOC
FY06	Linguists	Existing	Various MARFOR HQ	0	100	100		FY06
FY06	Psyops	Existing	Various MARFOR HQ	7	21	28		FY06
FY06	SATCOM Ops	Existing	Various MARFOR HQ	0	97	97		FY06
FY06	EOD Ops	Existing	Various MARFOR HQ	24	145	169		FY06
FY06	Combat Engineer Co	Existing	Camp Pendleton/Camp Lejeune/29 Palms	0	93	93		FY06
FY06	Recon U Codes	Existing	Camp Pendleton/Camp Lejeune/29 Palms	18	105	123		FY06
FY06	Counter Intel	Existing	Various MARFOR HQ	15	72	87		FY06
FY06	All Source Fusion	Existing	Various MARFOR HQ	9	0	9		FY06
FY06	FMTU	Existing	Camp Lejeune	0	405	405		FY06
FY06	Recruiting (MCRC)	Existing	Recruiting Stations across U.S.	4	421	425		FY06
FY06	Infantry Bn (100%)	Existing	Various	90	1710	1800		FY06
FY06	ANGLICO (5th)	Existing	OCONUS	20	71	91		FY06
FY06	Bn Recon Plt	Existing	OCONUS	5	69	74		FY06
FY07	Artillery HQ (5/10)	Existing	Camp Lejeune	20	139	159		FY07
FY07	Recruiting (MCRC)	Existing	Recruiting Stations across U.S.	4	396	400		FY07
FY07	Training (TECOM)	Existing	Existing schools across U.S.	129	471	600		FY07
FY07	Utility Helicopter Training	Existing	Camp Pendleton MCAS	10	100	110		FY07
FY08	Intel Initiatives	Existing	Across USMC Installations	72	188	260		FY08
FY08	3d Radio Bn	Existing	Hawaii	7	60	67		FY08
FY08	Recruiting (MCRC)	Existing	Recruiting Stations across U.S.	0	200	200		FY08
FY08	Civil Affairs Planners	Existing	Camp Pendleton/Camp Lejeune/OCONUS	16	31	47		FY08
FY08	Fleet Replacement Sqdn (H1)	Existing	Camp Pendleton	10	150	160		FY08
FY08	Utility Helo Ops Test Team	Existing	China Lake NAS	6	30	36		FY08
FY08	Training (TECOM)	Existing	Existing schools across U.S.	40	285	325		FY08
FY08	ANGLICO Plt	Existing	OCONUS	11	41	52		FY08
FY08	Civil Affairs Det	Existing	OCONUS	6	36	42		FY08
FY09	Combat Engineer Bn HQ	Existing	29 Palms	15	103	118		FY09
FY09	Combat Engineer Bn Spt Co	Existing	29 Palms	5	164	169		FY09
FY09	Information Ops	Existing	Quantico/Norfolk	37	64	101		FY09
FY09	Training (TECOM)	Existing	Existing schools across U.S.	75	250	325		FY09
FY10	Combat Logistics Regt	Existing	Camp Pendleton/Camp Lejeune	8	428	436		FY10
FY10	Infantry Bn Dist Ops Plus Up	Existing	Across Bns	0	513	513		FY10
FY10	Regt HQ Plus Up 24/7	Existing	Across Regt HQs	32	304	336		FY10
FY10	Marine Logistics Group Dist Ops Plus Up	Existing	Camp Pendleton/Camp Lejeune/OCONUS	0	81	81		FY10
FY10	Marine Logistics Group Comm	Existing	Camp Pendleton/Camp Lejeune/OCONUS	0	248	248		FY10
FY10	JSF Training/Testing	Existing	Eglin	18	180	198		FY10
FY11	JSF Training/Testing	Existing	Eglin	8	78	86		FY11
FY11	Foreign Area Ofc/Regional Area Ofc	Existing	3 at each MEF & 3 at MarFor (Pac, South, Eur, Kor, Cent)	24	0	24		FY11
FY12	JSF Training/Testing	Existing	Eglin	16	135	151		FY12

Table 1-2 Existing Unit Plan (Fiscal year refers to year of augmentation)

New Unit Plan (FY 2006 – FY 2008)

FY	Unit	New or Existing	Location	Officer	Enlisted	Total End Strength	IOC	FOC
FY06	LAR Co (3)	New	Camp Pendleton/Camp Lejeune/29 Palms	15	402	417		FY06
FY06	Bn Recon Plt (2)	New	Camp Pendleton/Camp Lejeune	10	138	148		FY06
FY06	ATC Dets (8)	New	Various	0	40	40		FY06
FY06	Force Recon (2)	New	Camp Pendleton/Camp Lejeune	2	42	44		FY06
FY07	Counter-Battery Radar Plt	New	Camp Pendleton	1	57	58	FY07 2nd	FY07 4th
FY07	Recon Plt (2)	New	Camp Pendleton	2	44	46	FY07 2nd	FY07 4th
FY07	Military Police Co (2)	New	Camp Pendleton/Camp Lejeune	8	132	140	FY07 2nd	FY07 4th
FY07	ANGLICO Plt (un C-code)	New	Camp Pendleton	11	41	52	FY07 4th	FY08 3rd
FY07	Combat Engineer Co	New	29 Palms	5	109	114	FY07 2nd	FY07 4th
FY07	Infantry Bn (1/9)	New	Camp Lejeune	45	828	873	FY07 2nd	FY07 4th
FY07	Infantry Bn (2/9)	New	Camp Lejeune	45	828	873	FY07 4th	FY08
FY08	Military Police Co (2) & Plt	New	Camp Pendleton/Camp Lejeune	11	322	333	FY08 3rd	FY09 1st
FY08	Division Truck Co	New	Camp Lejeune	10	214	224	FY08 2nd	FY08 4th
FY08	Heavy Lift Helicopter (MATS)	New	Cherry Pt (Temp)/New River MCAS (Perm)	41	294	335	FY08 3rd	FY10 3rd
FY08	Infantry Regt HQ	New	Camp Lejeune	28	200	228	FY08 2nd	FY08 4th
FY08	Artillery Btry	New	Hawaii	8	138	146	FY08 2nd	FY08 4th
FY08	Recon Plt (2)	New	Camp Lejeune	2	44	46	FY08 2nd	FY08 4th
FY08	Division Truck Co	New	Camp Pendleton	10	214	224	FY08 2nd	FY08 4th
FY08	Combat Engineer Co	New	29 Palms	5	109	114	FY08 2nd	FY08 4th
FY08	Unmanned Aerial Vehicle Sqdn	New	29 Palms	14	176	190	FY08 4th	FY10 1st
FY08	Marine Air Control Group	New	Cherry Pt/Miramar	12	32	44	FY08 2nd	FY08 4th
FY08	Marine Air Support Sqdn	New	Cherry Pt/Camp Pendleton	40	206	246	FY08 2nd	FY08 4th
FY08	ANGLICO Plt	New	Camp Lejeune	11	41	52	FY08 4th	FY09 3rd
FY08	Civil Affairs Dets (2)	New	Camp Pendleton/Camp Lejeune	12	72	84	FY08 2nd	FY08 4th
FY08	Explosive Ordnance Disposal Teams (4)	New	Camp Pendleton/Camp Lejeune	4	32	36	FY08 4th	FY09 2nd
FY08	Intel Bn (Co)	New	Cherry Point	11	100	111	FY08 4th	FY09 3rd
FY08	Infantry Bn (3/9)	New	Camp Lejeune	45	828	873	FY08 3rd	FY09 1st
FY08	Combat Logistics Bn	New	Camp Lejeune	17	326	343	FY08 4th	FY09

Table 1-3 New Unit Plan (FY 06 – FY 08)

New Unit Plan (FY 2009 – FY 2011)

FY	Unit	New or Existing	Location	Officer	Enlisted	Total End Strength	IOC	FOC
FY09	Military Policy Co (2)	New	Camp Pendleton/Camp Lejeune	10	282	292	FY09 3rd	FY09 4th
FY09	Marine Air Control Sqdn	New	Yuma	5	87	92	FY09 2nd	FY09 4th
FY09	Counter-Battery Radar Plt	New	Camp Lejeune	1	57	58	FY09 2nd	FY09 4th
FY09	Light Attack Helo Sqdn #7	New	Cherry Pt (Temp)/New River MCAS (Perm)	70	396	466	FY09 2nd	FY10 3rd
FY09	Combat Logistics Bn	New	Camp Lejeune	6	231	237		FY09 2nd
FY09	Combat Logistics Bn MEU (3)	New	Camp Pendleton/Camp Lejeune	30	484	514		FY09 3rd
FY09	Artillery Btry	New	Camp Lejeune	8	138	146	FY09 2nd	FY09 4th
FY09	Radio Bn	New	Cherry Point	28	321	349	FY09 4th	FY10 3rd
FY09	Intel Bn	New	Cherry Point	38	235	273	FY08 4th	FY10 1st
FY09	Explosive Ordnance Disposal Teams (5)	New	Camp Pendleton/Camp Lejeune	5	40	45		FY09 3rd
FY09	Marine Wing Comm Sqdn	New	Miramar	10	257	267	FY09 2nd	FY10 2nd
FY09	Light Attack Helo Sqdn #8	New	Camp Pendleton	70	396	466	FY09 3rd	FY11 3rd
FY10	Marine Air Control Sqdn	New	Cherry Point	5	87	92	FY10 2nd	FY10 4th
FY10	Marine Wing Comm Sqdn	New	Cherry Point	10	257	267	FY09 2nd	FY10 2nd
FY10	*Artillery Btry*	*New*	*Camp Lejeune*	*8*	138	*146*	*FY10 2nd*	*FY10 4th*
FY10	Aslt Amphib Co	New	Camp Pendleton	6	185	191	FY10 2nd	FY10 4th
FY10	Aslt Amphib Co	New	Camp Lejeune	6	185	191	FY10 2nd	FY10 4th
FY10	Counter-Battery Radar Plt	New	29 Palms	1	57	58	FY10 2nd	FY10 4th
FY10	Marine Tac Air Cmd Sqdn	New	Cherry Pt/Miramar	20	102	122	FY10 2nd	FY10 4th
FY11	Tank Bn	New	29 Palms	48	724	772	FY11 2nd	FY11 4th
FY11	Heavy Lift Helo Sqdn (2)	New	New River	82	588	670	FY11 3rd	FY13 4th
FY11	Light Attack Helo Sqdn #9	New	New River	70	396	466	FY11 4th	FY13 2nd
FY11	Flight Attack Sqdn (2)	New	Beaufort/Miramar	48	444	492	FY11 4th	FY13 4th
FY11	Combat Logistics Co	New	Camp Pendleton	18	200	218	FY11 2nd	FY11 4th
FY11	Bridge Co (2)	New	Camp Pendleton/29 Palms	6	174	180	FY11 4th	FY12 2nd
	P2T2					4751		

Table 1-3 New Unit Plan (FY 09 – FY 11)

Military Construction Plan

FACILITIES PROJECTS

Permanent facilities, facility planning and design, and site preparation for the 27,000 end strength increase were included in the FY 2007 and FY 2008 GWOT requests, as well as the FY 2008 President's Budget request.

Table 2-1, 2-2, and 2-3 identify the permanent facilities and site preparation efforts associated with the end strength increase in FY 2007 and FY 2008. Funds were also requested in the FY 2008 President's Budget for the procurement of temporary facilities that will be used as temporary shelters until completion of permanent facilities ($147 million). Temporary facilities are discussed separately below.

FY 2007 GWOT SUPPLEMENTAL

Project Number	Title	Location	MCON Cost ($K)	Collateral Equipment O&MMC ($K)	Collateral Equipment PMC ($K)
P-710	Grow the Force Interim Fac. Site Prep	MAGTFTC 29 Palms, CA	27,340		
P-171	Grow the Force Interim Fac. Site Prep	MCAS Cherry Point, NC	27,050		
P-187	Grow the Force Interim Fac. Site Prep	MCAS Miramar, CA	4,800		
P-703	Grow the Force Interim Fac. Site Prep	MCAS New River, NC	850		
P-537A	Grow the Force Interim Fac. Site Prep	MCAS Yuma, AZ	1,200		
P-1229	Grow the Force Interim Fac. Site Prep	MCB Camp Lejeune, NC	50,660		
P-1213	Messhall - Hadnot Point	MCB Camp Lejeune, NC	16,100	1,449	81
P-1224	EOD Addition, FC 292	MCB Camp Lejeune, NC	2,570	116	26
P-1223	Truck Company Maintenance/Ops Complex	MCB Camp Lejeune, NC	9,150	1,071	302
P-1222	MP Company Operations Complex	MCB Camp Lejeune, NC	5,800	493	377
P-1221	Additions to Regimental Headquarters	MCB Camp Lejeune, NC	8,600	731	559
P-1220	3/9 Maintenance/Operations Complex	MCB Camp Lejeune, NC	41,490	2,282	
P-1225	BEQ - 3/9 - Hadnot Point	MCB Camp Lejeune, NC	40,560	3,448	
P-1117	Grow the Force Interim Fac. Site Prep	MCB Camp Pendleton, CA	39,730		
P-846	Grow the Force Interim Fac. Site Prep	MCB Hawaii, HI	2,170		
	Planning and Design		46,200		
	Total 2007 Supplemental		**324,270**	**9,589**	**1,344**

Table 2-1. FY07 Supplemental GWOT Budget

FY 2008 GWOT IN THE FY 2008 PRESIDENT'S BUDGET REQUEST

Project Number	Title	Location	MCON Cost	Collateral Equipment	
				O&M, MC	PMC
			($K)	($K)	($K)
P-998	Regimental Combat Team HQ Facility	MAGTFTC 29 Palms, CA	4,440	377	289
P-1156	Maintenance/Operations Complex 2/9	MCB Camp Lejeune, NC	43,340	2,384	-
P-105	Armory - Intel Battalion – HQ Area	MCB Camp Pendleton, CA	4,180	188	42
P-1004	Armory - 5th Marine Regiment	MCB Camp Pendleton, CA	10,890	490	109
P-1003	BEQ and Armory – Pulgas	MCB Camp Pendleton, CA	34,970	2,972	-
P-1002	Armory - Regimental and Battalion HQ	MCB Camp Pendleton, CA	5,160	232	52
P-1001	Company HQ - MP Company	MCB Camp Pendleton, CA	8,240	700	536
P-1000	BEQ and Enlisted Dining Fac. - HQ Area	MCB Camp Pendleton, CA	24,390	2,195	122
P-083	EOD Operations Complex	MCB Camp Pendleton, CA	13,090	1,532	432
P-009C	ISR Camp - Intel Battalion – 4000 Marine	MCB Camp Pendleton, CA	1,114	95	72
PEH0803	Family Housing PPV Seed Funds – 66 Units	MCB Camp Pendleton, CA	10,692		
TPH0802	Family Housing PPV Seed Funds – 6 Units	MAGTFTC 29 Palms, CA	1,074		
	Planning and Design		7,491	-	-
	Total 2008 GWOT		**169,071**	**11,166**	**1,653**

Table 2-2. FY08 GWOT Budget

FY 2008 BASELINE BUDGET IN THE FY 2008 PRESIDENT'S BUDGET

Project Number	Title	Location	MCON Cost ($K)	Collateral Equipment O&MMC ($K)	Collateral Equipment PMC ($K)
P-971C	MOUT Facility (Phase 3)	MAGTFTC 29 Palms, CA	21,390	1,818	1,390
P-916	Multi-Battalion Operations Center	MAGTFTC 29 Palms, CA	33,650	2,860	2,187
P-915	Multi-Battalion Operations Center	MAGTFTC 29 Palms, CA	33,770	2,870	2,195
P-979	Landfill	MAGTFTC 29 Palms, CA	13,560		
P-963	Armory	MAGTFTC 29 Palms, CA	5,920	266	59
P-184	Hangar Modification	MCAS Miramar, CA	26,760	1,204	134
P-1163	Main Gate Physical Security Upgrade	MCB Camp Lejeune, NC	7,920	673	515
P-1227	BEQ - Wounded Warrior Battalion	MCB Camp Lejeune, NC	27,270	2,318	-
P-1164	Physical Security Upgrades - Piney Green	MCB Camp Lejeune, NC	6,660	566	433
P-031	Multi-Purpose Machine Gun Range - G10	MCB Camp Lejeune, NC	17,250	1,466	1,121
P-1046	Landfill Cell	MCB Camp Lejeune, NC	14,170		
P-1147	Wastewater System Modification	MCB Camp Lejeune, NC	7,070		
P-003	Force Intel Ops Center - HQ Area	MCB Camp Pendleton, CA	24,990	2,124	1,624
P-780	1st MLG Headquarters	MCB Camp Pendleton, CA	18,160	1,544	1,180
P-781	1st MLG Armory	MCB Camp Pendleton, CA	8,150	693	530
P-783	1st MLG Group and Battalion HQ	MCB Camp Pendleton, CA	22,220	1,889	1,444
P-1005	BEQ - Wounded Warrior Battalion	MCB Camp Pendleton, CA	25,940	2,205	-
P-117	Consolidated Comm/Electronics Shop	MCB Camp Pendleton, CA	16,840	1,970	556
P-668	Warfare Programs Support Center	MCB Quantico, VA	5,000	425	325
P-334	Enlisted Dining Facility Consolidation	MCRD Parris Island, SC	24,430	2,199	122
PEH0802	Family Housing PPV Seed Funds – 150 Units	MCB Camp Pendleton, CA	25,000		
TPH0801	Family Housing PPV Seed Funds – 279 Units	MAGTFTC 29 Palms, CA	50,000		
	Planning and Design		21,792		
	Total 2008 Grow the Force Program		**457,912**	**27,091**	**13,816**

Table 2-3 FY08 Baseline Budget

TEMPORARY RELOCATABLE FACILITIES

The Marine Corps will procure approximately 1,500 temporary, relocatable facilities, with the majority located at Camp Pendleton (469), Camp Lejeune (300), and Twentynine Palms (446). Relocatable facilities include pre-engineered buildings, sprung shelters (large span tents), and trailers. Operational units (armory, maintenance, storage, etc) will be housed primarily in pre-engineered buildings and sprung shelters. Headquarters elements and classroom training units will be housed in trailers. Bachelor berthing needs will be met using existing barracks and waiving assignment policy standards until permanent facilities are completed. Trailers may be used for berthing on a case-by-case basis.

FUTURE REQUIREMENTS

Military construction will be required in FY 2009 and beyond to continue preparing the bases for the ramp-up of additional personnel. Facilities constructed in FY 2007 through FY 2009 are National Environmental Policy Act (NEPA) compliant. Those permanent facilities and infrastructure projects that are contingent upon the completion of any NEPA efforts are planned to begin in FY 2010. Table 3-1 below reflects requirements planning in FY 2009 and beyond to complete construction for the entire 27,000 end strength ramp-up.

FUTURE REQUIREMENTS ($ millions)

Type of Facility	
Administrative Buildings	1,036.6
Airfield Pavements	75.8
Ammunition Storage	3.7
Covered Storage	219.2
Electrical Power	164.8
Heat and Refrigeration (Air	17.8
Improvements to Facilities or Sites	17.0
Indoor Morale, Welfare, and	137.6
Land	7.0
Land Operational Facilities	136.5
Maintenance Facilities	475.4
Miscellaneous Utilities	78.9
Personnel Support and Services	24.4
Roads and Other Pavements	313.1
Sewage and Waste	180.0
Training Facilities	355.9
Unaccompanied Personnel Housing	1,989.3
Water	150.0
Planning & Design	237.2
Total Construction	**5,620.2**
Family Housing	483.8
Total Construction	**6,104.0**

Table 3-1. Grow the Force Summary of Future Requirements

Note: Figures noted above are based on planning estimates and subject to further review

SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

SW

DEC 8 2006

The Honorable John Warner
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 1011 of the John Warner National Defense Authorization Act for Fiscal Year 2007 requires that I evaluate the feasibility of transferring custody and control of USS JOHN F KENNEDY (CV 67) to either the Department of Homeland Security or the North Atlantic Treaty Organization. The same provision also requires that, before retiring the ship, I certify to the Committees on Armed Services of the Senate and the House of Representatives that neither of the aforementioned organizations desire to maintain and operate the ship.

In the enclosed letters, the Secretary of Homeland Security and the Supreme Allied Commander Europe declined my offer to maintain and operate the ship. Therefore, I have directed the Secretary of the Navy to begin the decommissioning process for USS JOHN F KENNEDY (CV 67).

A similar letter has been sent to Chairman Hunter of the House Armed Services Committee.

Sincerely,

cc:
The Honorable Carl Levin
Ranking Member

Enclosure:
(1) Letter from the Department of Homeland Security
(2) Letter from the North Atlantic Treaty Organization

OSD 18188-06
12/15/2006 7:48:14 AM

SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

DEC 8 2006

The Honorable Duncan Hunter
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Section 1011 of the John Warner National Defense Authorization Act for Fiscal Year 2007 requires that I evaluate the feasibility of transferring custody and control of USS JOHN F KENNEDY (CV 67) to either the Department of Homeland Security or the North Atlantic Treaty Organization. The same provision also requires that, before retiring the ship, I certify to the Committees on Armed Services of the Senate and the House of Representatives that neither of the aforementioned organizations desire to maintain and operate the ship.

In the enclosed letters, the Secretary of Homeland Security and the Supreme Allied Commander Europe declined my offer to maintain and operate the ship. Therefore, I have directed the Secretary of the Navy to begin the decommissioning process for USS JOHN F KENNEDY (CV 67).

A similar letter has been sent to Chairman Warner of the Senate Armed Services Committee.

Sincerely,

cc:
The Honorable Ike Skelton
Ranking Member

Enclosure:
(1) Letter from the Department of Homeland Security
(2) Letter from the North Atlantic Treaty Organization

Secretary

US. Department of Homeland Security
Washington, DC 20528

Homeland Security

November 2,2006

The Honorable Donhld Rumsfeld
Secretary of Defense
Washington, D.C. 20301

Dear Mr. Secretary:

Thank you for your October 13,2006 letter regarding the feasibility of maintaining the USS JOHN F. KENNEDY (CV 67) in an operational status by transferring custody and control to the Department of Homeland Security.

Given the current mission profiles and needs of our operations components, we feel that the projected expenditure required to maintain and operate the subject vessel would not be a sound investment the Department of Homeland Security. As such, the Department of Homeland Security is unable to assume control and custody of the vessel.

Sincerely,

Michael Chertoff

SUPREME ALLIED COMMANDER EUROPE
SHAPE, BELGIUM

10 November 2006

The Honorable Mr. Donald H. Rumsfeld
Secretary of Defence
The Pentagon
Washington D.C. 20520

Dear Secretary Rumsfeld

Your letter of 13 October 2006 requested that we consider the transfer of custody and control of USS John F. Kennedy (CV 67) from the United States to NATO.

The NATO method of sourcing naval force requirements is to call on member nations to provide units on either a temporary basis to meet short-term requirements or to provide units on a rotational basis to meet its long-term (standing) requirements. The current NATO standing maritime force requirement does not include a requirement for an aircraft carrier.

While the NATO Response Force 7-8 Combined Joint Statement of Requirements dated 1 March 2005 does state a requirement for an aircraft carrier with organic fixed wing assets and the capacity to act as a command platform, this requirement is temporary in nature and will end when the asset is no longer required for the contingency.

There is no known requirement or intention for the alliance to operate an aircraft carrier on a permanent long-term basis. We do not have the infrastructure to man, train and equip a force structure element outside of national organizations.

Additionally, there is the practical issue of affordability. Within NATO, there is no method to fund NATO force structure outside of national force contributions.

It is my judgment that there is no military requirement for accepting this kind offer.

Very respectfully

James L. Jones
General, U.S. Marine Corps

8.
DO

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

ACTION MEMO

November 21,2006

FOR: SECRETARY OF DEFENSE

FROM: Donald C. Winter, Secretary of the Navy

SUBJECT: USS JOHN F KENNEDY Coordination Letters

- FY 2007 National Defense Authorization Act (NDAA) language, TAB 1, requires that DoD evaluate the feasibility of maintaining USS John F Kennedy in an operational status by transferring custody and control to the Department of Homeland Defense or the North Atlantic Treaty Organization (NATO)

  TAB 2 and TAB 3 are letters from the Secretary of the Department of Homeland Security (DHS) and the Supreme Allied Commander Europe, both declining control and custody of JFK.

- As required by the FY 2007 NDAA, TAB 4 contains letters from SECDEF notifying the chairmen of the Senate and House Armed Services Committees that DHS and the Supreme Allied Commander Europe declined the offer to accept control of custody of the JFK and the Department's intent to initiate the immediate decommissioning of the JFK.

RECOMMENDATION: SECDEF sign letters at TAB 4.

SDM

COORDINATION: ~~None~~ TAB 5

ATTACHMENTS:
As stated

Prepared by CAPT John Zangardi, LA-5,693-2919

SDCA		DSDSA	
SDSMA		DSD SMA	
SD MA		DSDMA	
TSA	12/8	DSD CA	
STF DIR			
ES	12/5		

OSD 18188-06

11/21/2006 4:06:14 PM

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

OCT 30 2006

The Honorable Kay Bailey Hutchison
Chairman, Subcommittee on Military Construction
and Veterans Affairs
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Madam Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Quality of Life and Veterans Affairs, and Related Agencies Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for twenty-three Navy family housing high cost leases executed during the fourth quarter of fiscal year 2006. The twenty-three leases were for Navy recruiters outside the commuting zone of military installations. The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE Districts certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the Chairman of the House Appropriations Subcommittee on Military Quality of Life and Veterans Affairs. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Dianne Feinstein
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR/QTR: FY06-QTR 4

USACE District	City	State	Rank	BRs	Annual Lease Costs
Fort Worth					
	Fort Worth	TX	E6	4	$21,180
	Mandeville	LA	E7	3	$22,200
	Austin	TX	E5	4	$20,820
	Saginaw	TX	E7	4	$22,153
Louisville					
	Brighton Twp.	MI	E7	4	$22,200
	Uniontown	OH	E6	4	$22,600
	Howell	MI	E5	3	$21,960
	Troy	MI	E6	4	$20,400
Mobile					
	Miami	FL	E5	4	$22,635
	Orlando	FL	E6	3	$20,100
	Cape Coral	FL	E5	3	$22,470
	Pembroke Pines	FL	E5	3	$20,674
	Smyrna	TN	E6	3	$23,280
New England					
	Belchertown	MA	E6	3	$22,000
	Belchertown	MA	E5	4	$20,660
	Dalton	MA	E5	3	$23,400
Omaha					
	Maple Grove	MN	E7	3	$20,400
	North Mankato	MN	E6	4	$21,600
Sacramento					
	W. Jordan	UT	E7	3	$21,600
	Adelanto	CA	E6	3	$22,800
	Stockton	CA	E6	3	$22,500
Savannah					
	Charlotte	NC	E6	3	$20,600
	Charlotte	NC	E6	3	$21,560

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for a

Enclosure

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

OCT 30 2006

The Honorable James T. Walsh
Chairman, Subcommittee on Military Quality of Life
and Veterans Affairs
Committee on Appropriations
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Quality of Life and Veterans Affairs, and Related Agencies Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for twenty-three Navy family housing high cost leases executed during the fourth quarter of fiscal year 2006. The twenty-three leases were for Navy recruiters outside the commuting zone of military installations. The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE Districts certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the Senate Appropriations Subcommittee on Military Construction and Veterans Affairs. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Chet Edwards
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR/QTR: FY06-QTR 4

USACE District	City	State	Rank	BRs	Annual Lease Costs
Fort Worth					
	Fort Worth	TX	E6	4	$21,180
	Mandeville	LA	E7	3	$22,200
	Austin	TX	E5	4	$20,820
	Saginaw	TX	E7	4	$22,153
Louisville					
	Brighton Twp.	MI	E7	4	$22,200
	Uniontown	OH	E6	4	$22,600
	Howell	MI	E5	3	$21,960
	Troy	MI	E6	4	$20,400
Mobile					
	Miami	FL	E5	4	$22,635
	Orlando	FL	E6	3	$20,100
	Cape Coral	FL	E5	3	$22,470
	Pembroke Pines	FL	E5	3	$20,674
	Smyrna	TN	E6	3	$23,280
New England					
	Belchertown	MA	E6	3	$22,000
	Belchertown	MA	E5	4	$20,660
	Dalton	MA	E5	3	$23,400
Omaha					
	Maple Grove	MN	E7	3	$20,400
	North Mankato	MN	E6	4	$21,600
Sacramento					
	W. Jordan	UT	E7	3	$21,600
	Adelanto	CA	E6	3	$22,800
	Stockton	CA	E6	3	$22,500
Savannah					
	Charlotte	NC	E6	3	$20,600
	Charlotte	NC	E6	3	$21,560

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for a

Enclosure

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Quality of Life,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Construction Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for eighteen Navy family high cost leases executed during the third quarter of fiscal year 2007. The leases were for Navy recruiters outside the commuting zone of military installations. The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE District certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the Senate Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Roger F. Wicker
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR/QTR: FY07-QTR 3

District	City	State	Rank	BRs	Annual Lease Costs
Sacramento					
	Valley Springs	CA	E6	2	$21,600
	Carson City	NV	E5	4	$21,900
	Magalia	CA	E7	3	$23,040
	Adelanto	CA	E6	4	$23,400
	Lancaster	CA	E7	3	$25,020
New York					
	Saratoga Springs	NY	E6	2	$21,500
Omaha					
	North Mankato	MN	E6	4	$21,600
Mobile					
	Pembroke Pines	FL	E6	3	$24,444
	Miami	FL	E5	3	$22,815
	Spring Hill	TN	E6	4	$23,400
Fort Worth					
	Plano	TX	E4	3	$21,540
	Saginaw	TX	E5	5	$22,900
	Amarillo	TX	E5	3	$22,680
Louisville					
	Brighton Twp	MI	E7	4	$22,800
New England					
	Pembroke	NH	E5	3	$23,000
	Dalton	MA	E5	3	$24,000
	Belchertown	MA	E6	3	$24,400
Savannah					
	Kennesaw	GA	E7	4	$22,200

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for all leases

Enclosure

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

AUG 28 2007

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Construction Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for eighteen Navy family high cost leases executed during the third quarter of fiscal year 2007. The leases were for Navy recruiters outside the commuting zone of military installations. The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE District certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the House Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR/QTR: FY07-QTR 3

District	City	State	Rank	BRs	Annual Lease Costs
Sacramento					
	Valley Springs	CA	E6	2	$21,600
	Carson City	NV	E5	4	$21,900
	Magalia	CA	E7	3	$23,040
	Adelanto	CA	E6	4	$23,400
	Lancaster	CA	E7	3	$25,020
New York					
	Saratoga Springs	NY	E6	2	$21,500
Omaha					
	North Mankato	MN	E6	4	$21,600
Mobile					
	Pembroke Pines	FL	E6	3	$24,444
	Miami	FL	E5	3	$22,815
	Spring Hill	TN	E6	4	$23,400
Fort Worth					
	Plano	TX	E4	3	$21,540
	Saginaw	TX	E5	5	$22,900
	Amarillo	TX	E5	3	$22,680
Louisville					
	Brighton Twp	MI	E7	4	$22,800
New England					
	Pembroke	NH	E5	3	$23,000
	Dalton	MA	E5	3	$24,000
	Belchertown	MA	E6	3	$24,400
Savannah					
	Kennesaw	GA	E7	4	$22,200

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for all leases

Enclosure

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

May 8, 2006

The Honorable James T. Walsh
Chairman, Subcommittee on Military Quality of Life
and Veterans Affairs
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Quality of Life and Veterans Affairs, and Related Agencies Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for eleven Navy family high cost leases executed during the second quarter of fiscal year 2006. The eleven leases were for Navy recruiters outside the commuting zone of military installations. The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE Districts certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the Senate Appropriations Subcommittee on Military Construction and Veterans Affairs. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Chet Edwards
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR/QTR: FY06-QTR 2

District	City	State	Rank	BRs	Annual Lease Costs
Fort Worth					
	Hammond	LA	E5	3	$20,280
	Lubbock	TX	E7	3	$19,020
	Pearland	TX	E6	4	$19,800
	Fort Worth	TX	E7	3	$21,600
Mobile					
	West Palm	FL	E5	4	$21,360
New England					
	Pembroke	NH	E6	3	$21,668
New York					
	Saratoga	NY	E6	3	$21,000
	Beacon	NY	E5	3	$21,600
Omaha					
	Prior Lake	MN	E7	4	$21,600
	Lakeville	MN	E7	3	$21,600
Sacramento					
	Chico	CA	E6	3	$21,600

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for all leases

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

May 8, 2006

The Honorable Kay Bailey Hutchison
Chairman, Subcommittee on Military Construction
and Veterans Affairs
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Madam Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Quality of Life and Veterans Affairs, and Related Agencies Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for eleven Navy family high cost leases executed during the second quarter of fiscal year 2006. The eleven leases were for Navy recruiters outside the commuting zone of military installations. The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE Districts certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the Chairman of the House Appropriations Subcommittee on Military Quality of Life and Veterans Affairs. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Dianne Feinstein
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR/QTR: FY06-QTR 2

District	City	State	Rank	BRs	Annual Lease Costs
Fort Worth					
	Hammond	LA	E5	3	$20,280
	Lubbock	TX	E7	3	$19,020
	Pearland	TX	E6	4	$19,800
	Fort Worth	TX	E7	3	$21,600
Mobile					
	West Palm	FL	E5	4	$21,360
New England					
	Pembroke	NH	E6	3	$21,668
New York					
	Saratoga	NY	E6	3	$21,000
	Beacon	NY	E5	3	$21,600
Omaha					
	Prior Lake	MN	E7	4	$21,600
	Lakeville	MN	E7	3	$21,600
Sacramento					
	Chico	CA	E6	3	$21,600

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for all leases

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

May 2, 2007

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Construction Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for nine Navy family high cost leases executed during the first and second quarters of fiscal year 2007. The leases were for Navy recruiters and were executed by the U.S. Army Corps of Engineers (USACE). The USACE District certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the Senate Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Roger F. Wicker
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR, FY07-QTRS 1 AND 2

District	City	State	Rank	BRs	Annual Lease Costs
Sacramento					
	Santa Cruz	CA	E5	5	$21,600
	Chico	CA	E5	4	$23,412
	Chico	CA	E6	3	$22,032
New York					
	Poughkeepsie	NY	E5	3	$21,600
Omaha					
	Lakeville	MN	E7	3	$22,680
	Apple Valley	MN	E7	5	$22,740
Mobile					
	Wellington	FL	E5	4	$22,980
Fort Worth					
	Hammond	LA	E5	3	$23,280
	Fort Worth	TX	E5	3	$21,600

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for all leases

Enclosure

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

May 2, 2007

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Madam Chairman:

House Report 109-95, accompanying the Fiscal Year 2006 Military Construction Appropriations Bill, directs the Department to report quarterly on the details of any new or renewal family housing domestic lease entered into during the previous quarter which exceeds $15,000 per year.

The attached report is submitted for nine Navy family high cost leases executed during the first and second quarters of fiscal year 2007. The leases were for Navy recruiters and were executed by the U.S. Army Corps of Engineers (USACE). The U.S. Army Corps of Engineers (USACE) executed these leases. The USACE District certified that there were no other suitable housing units available to lease at a lower cost.

A similar letter has been sent to the House Appropriations Subcommittee on Military Construction, Veterans Affairs, and Related Agencies. As always, please let me know if I can be of further assistance.

Sincerely,

Wayne Arny
Deputy Assistant Secretary
(Installations and Facilities)

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Member

DEPARTMENT: NAVY
REPORT YEAR: FY07-QTRS 1 AND 2

District	City	State	Rank	BRs	Annual Lease Costs
Sacramento					
	Santa Cruz	CA	E5	5	$21,600
	Chico	CA	E5	4	$23,412
	Chico	CA	E6	3	$22,032
New York					
	Poughkeepsie	NY	E5	3	$21,600
Omaha					
	Lakeville	MN	E7	3	$22,680
	Apple Valley	MN	E7	5	$22,740
Mobile					
	Wellington	FL	E5	4	$22,980
Fort Worth					
	Hammond	LA	E5	3	$23,280
	Fort Worth	TX	E5	3	$21,600

USACE Districts certified there were no other suitable housing units available to lease at a lower cost for all leases

Enclosure

REPORT TO CONGRESS

METHODOLOGY TO CERTIFY MEDICAL MILITARY TO CIVILIAN CONVERSIONS FOR FISCAL YEAR 2006

PREPARED BY
Bureau of Medicine and Surgery, Department of the Navy
2300 E Street, NW, Washington, DC 20372-5300

July 10, 2007

Report Requirement

Fiscal Year (FY) 2007 National Defense Authorization Act (P.L. 109-364, Sec 742) requires resubmission of certification required by Section 744 of the Fiscal Year 2006 Defense Authorization Act, Public Law 109- 163 which prohibits the Secretaries of the military departments from converting any military medical or dental position to a civilian medical or dental position until the Secretary submits to the Committees on Armed Services of the Senate and the House of Representatives a certification that the conversions within that department will not increase cost or decrease quality of care or access to care. It also

directed a report with the certification:
"Report with certification-A Secretary submitting such a certification shall include with the certification a written report that includes-

(A) the methodology used by the Secretary in making the determinations necessary for the certification, including the merit to which the Secretary took into consideration the findings of the Comptroller General in the report under subsection *(b(3);*

(B) the results of a market survey in each affected area of the availability of civilian and dental care providers in such area in order to determine whether the civilian medical and dental care providers available in such area are adequate to fill the civilian positions created by the conversion of military medical and dental positions to civilian positions in such area; and

(C) any action taken by the Secretary in response to recommendations in the Comptroller General report under subsection (b)(3)".

The methodology and action taken in response to Comptroller General recommendations will be discussed as they pertain to the Secretary of the Navy certification concerning cost, quality of care, and access to care. The Market Survey requirement is discussed at the end of this report.

Cost

Summary

Medical military to civilian conversions will not increase cost to the Department of the Navy. The amount of funding received for FY06 for the FY05 conversions and for the FY 06 conversions is currently adequate to fund the civilian hires.

Methodology

FY05 Conversions

Navy compared the amount of funding received versus the amount of budgeted dollars required to hire all necessary and requested civilian personnel. PB05 provided the Navy Defense Health Program (DHP) an annualized Operations and Maintenance amount of $148.3M (FY06 dollars). In comparison, Navy Military Treatment Facilities (MTFs) who had military conversions initially requested a total of $82M to hire 1,225 specific Federal civilian and contractor positions based on multiple levels of analysis. The $82M was calculated by costing out the specific wage grade, by geographical location, of all MTF requested Federal civilians and various salary surveys for contractors. The comparison between the amount received and the amount required was duplicated for all outyears.

FY06 Conversions.

Navy used a similar comparison methodology for FY06 conversions. However, the amount of funding received was based on the Military Personnel Appropriation program rates (programming rates) allocated to the Assistant Secretary of Defense (Health Affairs) for

Navy military positions.

GAO Report

General Accounting Office (GAO) report (GAO-06-642) stipulates that it is "unknown whether the conversion of military health care positions to civilian conversions will ultimately increase or decrease costs for DoD" because actual civilian hire costs are unknown and the military personnel programming rates "do not include the full compensation costs for military personnel." Because of these findings, GAO recommended that the Secretary of Defense direct the Service Secretaries to take two actions.

Recommendation 1

"Coordinate the development of their (Services) Congressional certifications for military health care conversions with the Office of Program Analysis and Evaluation (PA&E) in order to consider the full cost for military personnel and for federal civilian or contract replacement personnel in assessing whether anticipated costs to hire federal civilian or contract replacement personnel will increase costs to DoD for defense health care."

Navy comments on Recommendation 1

PA&E's analysis generates a higher average cost per military member than that reflected in the programming rates. PA&E's analysis adds several items of personnel cost that, although part of the total government cost, are not included in the programming rates. Navy is able to certify for FY06 using the current programming rates. The Deputy Secretary of Defense memorandum of 22 June 06 on Managing Military Personnel Resources in the Defense Health Program and Special Operations Command mandates that future transfer of funds be based on the annual DoD Composite Rate, unless negotiated differently between ASD (HA) and the military departments. Certification based on the PA&E data is therefore not necessary.

Recommendation 2

"Address in their (Services) Congressional certification for military health care conversions the extent to which total projected costs for hiring Federal civilian or contract personnel include actual compensation costs for completed hires and anticipated compensation for future hires."

Navy comments on Recommendation 2

The $82M allocated to hire FY05 conversion civilian personnel was determined by applying budgeted, vice actual, funding required. Actual funding amounts were not used for several reasons: First, all FY05 civilian conversions hires would have to be complete to determine actual amounts; second, actual amounts will vary slightly (upward or downward) by the number of hours an individual works and any special pays they may receive; and, third, the amount of funding required to hire civilian personnel is determined prior to actual hiring in accordance with normal budgeting practices. The budgeting process determines the amount of funding required.

Quality of Care

Summary

Navy Medicine demands the same quality of care standards from all employees, including new military to civilian conversion hires, regardless of human resource category (military, Federal civilian, or contractor). No decrease in quality of care has occurred due to military to civilian conversions.

Methodology

Navy has multiple processes and performance measures to ensure high quality healthcare is being delivered. However, in order to obtain individual position level information the methodology for certification focused on ensuring that the hiring process of Federal civilians or contractors provided the appropriate quality level required.

Federal civilian hiring process

In order to ensure that the federal civilian recruitment process meets the quantitative and qualitative hiring needs of the activity, a three-step process is used. Specifically,

1. The Navy's Federal civilian recruitment process responds to the demand signal provided by an activity to hire a federal civilian with certain predetermined criteria (knowledge, skills, and abilities). This process ensures the appropriate experience and education requirements are met to ensure the minimum qualifications and the proper grading of the position. This process creates a pool of potential applicants. The pool then is referred to the selecting official of the activity requesting the recruitment action.
2. The activity interviews the pool of candidates and either makes a selection based on predetermined criteria or not. If selecting officials question or are dissatisfied with the qualifications or quality of specific applicants the selecting officials are encouraged to discuss these concerns with their human resource advisors. When concerns are raised, additional reviews are conducted prior to making a job offer would be made.
3. Credentialing and Privileging

Once the selecting officials tender an offer the candidate is required to meet the condition of the Bureau of Medicine and Surgery (BUMED) Instruction 6320.66D entitled "Credentials Review and Privileging Program". The Credentialing Review and Privileging program does not differentiate between active duty, federal civilian, or contractor. The BUMED instruction references DoD directive 6025.13, entitled "Medical Quality Assurance (MQA) in the Military Health System (MHS)". Neither the BUMED nor DoD instruction differentiates between active duty and civilian (federal civilian or contractors) personnel.

Contractor hiring process

Contract personnel hired are required to meet the same quality standards as other personnel. Credentialing and privileging of contractors use the same process as that is used for Federal civilians.

Verification

Navy officials, working with GAO, used Naval Medical Center, Portsmouth, Virginia as a sample to verify that conversion hired healthcare providers met the necessary quality standards. The examination of providers found that all necessary credentialing and privileging documentation had been completed and the necessary queries of the National Practitioner Data Bank found no adverse information.

Access to Care

Summary

Navy is not able to attribute or correlate any access increases or decreases in either the direct or purchased care (TRICARE (DoD's Tri-Service managed care program) network) system to any one specific reason, including conversions, due to the multiple factors that influence both supply and demand within the military health care system.

The supply of active duty available providers and support staff depends on the number of

authorized billets, Navy's personnel distribution system filling authorized billets, current retention rates, Combatant Commander and Department of Navy required deployments, and the economics of delivery of health care within the direct care system versus the purchased care system.

The supply of Federal civilian and contract providers is dependent upon manning requirements, funding availability, and labor market forces. The demand for care in the direct care system is dependent on operational tempo, the size of the beneficiary population, seasonality of use, and the population's associated health care requirements. The availability of network providers and the geographical location of beneficiaries are also factors.

Methodology

Direct Care

Navy performed a comprehensive review of access to care metrics within the Continental United States (CONUS) direct care system by examining the percent of appointments meeting access standards and the average days to get an appointment (versus the TRICARE access standard). The data included all primary care appointment types (acute, routine, specialty, and wellness) within CONUS activities since (a) the majority of military provider billets converted were primary care based, (b) conversion hiring occurred at CONUS MTFs, and (c) there were no inpatient specific specialty conversions. A longitudinal study from August 2003 - September 2006 was undertaken to measure any variation in the defined categories. The conclusion is that appointments continue to be made within the TRICARE Access Standards.

Purchased Care

Navy reviewed Purchased Care metrics on a longitudinal basis from October 2002 - September 2006. The data examined included CONUS Navy-wide inpatient and outpatient purchased care. Inpatient purchased care, measured by Relative Weighted Product (RWP), climbed steadily since 2003, with no appreciable increase when military to civilian conversions began. Outpatient purchased care, measured by Relative Value Unit (RVU), varied over the three fiscal years with no discernable link to military to civilian conversions. Comment on GAO Report does not provide any specific recommendations on Access to Care metrics. Navy concurs with report and findings.

Results of Market Survey

Summary

Navy medicine received an initial market availability analysis conducted by the Center for Naval Analyses, and subsequently completed two full analyses by local Military Treatment Facilities, Navy Medicine Regional Commands and the Bureau of Medicine and Surgery to determine the initial availability of civilian personnel. Converting military positions, eliminating billets and moving military personnel through permanent change of station (PCS) orders began 15 months prior to the passage of the FY 2006 National Defense Authorization Act.

REPORT TO CONGRESS

METHODOLOGY TO CERTIFY MEDICAL MILITARY TO CIVILIAN CONVERSIONS FOR FISCAL YEAR 2007

PREPARED BY
Bureau of Medicine and Surgery, Department of the Navy
2300 E Street, NW, Washington, DC 20372-5300

July 2007

Report Requirement

Under the guidelines of Section 742 of the Fiscal Year 2007 Defense Authorization Act, Public Law 109- 364, the Secretary of the Navy submits the following report addressing the FY 2007 medical military to civilian conversions.
The report includes the following sections:

A. The methodology used in making determinations
B. The number of positions planned for conversion
C. The results of a market survey by area and availability of providers
D. An analysis of direct and purchased care
E. The effect of conversions upon recruiting and retention
F. The comparison of full costs of conversions
G. The effect of conversions upon readiness
H. Positions scheduled to be converted in FY08
I. Conclusions

A. Methodology

The methodology in making the determination necessary for certification begins with review of military requirements. The Operational Support Algorithm (OSA) (Figure 1) determines military essentiality and the ultimate demand signal for our uniformed medical force. There are three components to the algorithm:

(1) Daily Operational Support: medical personnel who are organic to and a daily part of the command structures of the Fleet and FMF

(2) Surge personnel: dual use personnel required to augment deploying force, working in our Force Projection Platforms, i.e. Hospitals and Clinics who augment Marine Corps units, EMF's, T-AH, casualty receiving ships and serve as our Individual Augment manpower pool

(3) Force sustainment: personnel required to insure that we are acquiring and training the requisite specialty inventories for an adequately sized and clinically proficient medical force.

Billets, not included in the requirements defined by the OSA, were reviewed by the Center for Naval Analyses (CNA). CNA validated that the billets were not contained within the OSA and further identified which billets were most cost effective for conversion.

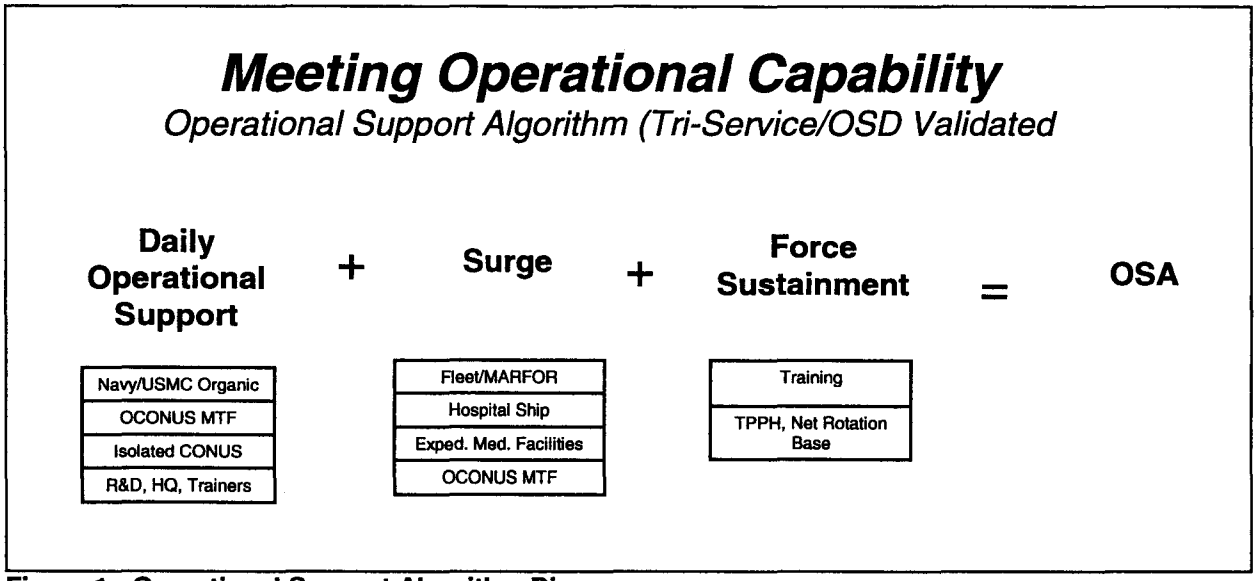


Figure 1: Operational Support Algorithm Diagram

Those billets identified by CNA for possible conversion were forwarded to the affected commands to review their affordability, hireability, and availability. After reviewing business plans and hiring projections, Medical Commanders recommended modifications. This process is ongoing and allows commands to have an active role in determining what type of civilian positions to hire. Additionally, for those billets identified for FY 07 and FY 08 we employed an outside contractor, Altarum, to perform a market survey in affected areas to determine availability and to compare full costs in those areas for the planned conversions.

B. Number of billets planned for conversion

In FY 07, the total number of planned conversions is 689 positions. These planned conversions include 33 Dental Corps Officers, 14 Medical Service Corps Officers, 10 Nurse Corps Officers, and 632 enlisted members. Table 1 displays the breakdown of officers by designator and rank. Table 2 displays the breakdown of enlisted by rating and rank.

Table 1. Officer Distribution by Corps and Grade for FY 07

CORPS	Captain O-6	Commander O-5	Lieutenant Commander O-4	Lieutenant O-3	Lieutenant Junior grade O-2	Ensign O-1	Grand Total
Dental Corps	9	6	9	9			33
Medical Service Corps		1	2	11			14
Nurse Corps				5	3	2	10
Grand Total	**9**	**7**	**11**	**25**	**3**	**2**	**57**

Table 2. Enlisted Billets Converted by Rating and Rank for FY 07

ENLISTED RATE	E-3	E-4	E-5	E-6	E-7	E-8	Grand Total
Culinary Specialist			1				1
Dentalman	64						64
Dental Tech		21	12	3			36
Hospital Corpsman		140	92	43	15	1	291
Hospitalman	233						233
Master at Arms		6	1				7
Grand Total	**297**	**167**	**106**	**46**	**15**	**1**	**632**
The Dental Technician and Hospital Corpsman ratings merged after the military to civilian conversion process							

C. Marketing Survey and Availability Analysis

Navy Medicine relied upon an analysis conducted by an outside contractor to project market availability of civilian medical and dental care providers by locality (zip code) and to estimate the full cost of replacing military personnel with civilians or contractors. This model incorporated market constraints based on the Bureau of Labor and Statistics, Salary.com and other external data to identify the ratio of specialties/technicians per 100,000 population in a market and corresponding salaries. Using this calculated ratio to predict constrained areas and forecast the potential costs of hiring a civilian or contractor, the model identified those FY 07 billets in moderate or highly constrained markets.

The market analysis uses the Annual DoD Composite Rate for military positions selected for conversion and examines the market availability in the area where the position is located. The model estimates full costs for civilian positions (including costs associated with recruiting, salary benefits, training and other costs) through a 25% increase over the civilian rate. The model projects that 420 of the 689 projected FY 07 conversions will be challenging, but attainable. Tables 3 through 5 display a sampling of hiring success rates by job title and fiscal year, for previous conversions.

Table 3. Navy Medicine's Hiring Statistics of FY 05 Conversions

TITLE	SERIES	BUDGETED HIRES	HIRES (BUDGETED)	non-HIRES (BUDGETED)	SUCCESS RATE (%)
PHARMACIST	660	23	18	5	78%
DENTAL ASSISTANT	681	161	123	38	76%
NURSE	610	91	69	22	76%
DENTAL HYGIENIST	682	4	3	1	75%
DENTIST	680	64	47	17	73%
MEDICAL TECHNOLOGIST	644	48	35	13	73%
MEDICAL TECHNICIAN	645	96	69	27	72%
DIAG RAD TECH	647	17	11	6	65%
REHAB THERAPIST	636	21	13	8	62%
MED NUC TECH	642	5	3	2	60%
NURSE ASSISTANTS	621	69	37	32	54%
OPTOMETRIST	662	2	1	1	50%
PRACTICAL NURSE	620	63	29	34	46%
PHYSICIAN ASSISTANT	603	20	5	15	25%

Table 4. Navy Medicine's Hiring Statistics of FY 06 Conversions

TITLE	SERIES	BUDGETED HIRES	HIRES (BUDGETED)	non-HIRES (BUDGETED)	SUCCESS RATE (%)
DENTAL LAB TECH	683	4	3	1	75%
HEALTH & AIDE TECH	640	17	12	5	71%
REHAB THERAPIST	636	6	4	2	67%
PHARMACY TECH	661	11	7	4	64%
DENTAL ASSISTANT	681	47	28	19	60%
DENTIST	680	26	15	11	58%
LAB MED TECHNICIAN	650	8	4	4	50%
MED TECHNICIAN	645	51	16	35	31%

Table 5. Navy Medicine's Hiring Statistics of FY 05 and FY 06 Conversions

TITLE	SERIES	BUDGETED HIRES	HIRES (BUDGETED)	non-HIRES (BUDGETED)	SUCCESS RATE (%)
NURSE	610	109	84	25	77%
MEDICAL TECHNOLOGIST	644	76	58	18	76%
DENTAL ASSISTANT	681	208	151	57	73%
DIAG RAD TECH	647	23	16	7	70%
DENTIST	680	90	62	28	69%
OPTOMETRIST	662	3	2	1	67%
MED NUC TECH	642	6	4	2	67%
REHAB THERAPIST	636	27	17	10	63%
MEDICAL OFFICER	602	84	51	33	61%
MEDICAL TECHNICIAN	645	147	85	62	58%
NURSE ASSISTANT	621	71	39	32	55%
PRACTICAL NURSE	620	65	31	34	48%
PHYSICIAN ASSISTANT	603	25	10	15	40%
LAB MED TECHNICIAN	650	11	2	9	18%

Using the model to evaluate the availability of civilian specialties for FY07, those specialties identified as highly constrained (specialties experiencing shortages in specific medical labor markets) were identified. Pairing this data with the experiential hiring data in Table 5, 130 positions (19%) were identified as high risk for conversion based on personnel costs and/or the availability of the skill set in the civilian market. Table 6 summarizes these billets by medical specialty. Appendix A is a detailed billet list of these positions. Appendix B lists those billets where the risk is considered low to moderate for conversion.

Table 6. Summary of high risk conversion billets

TITLE	FY07
NURSE	4
MEDICAL TECHNOLOGIST	8
DENTAL ASSISTANT	21
DIAG RAD TECH	6
DENTIST	30
MED NUC TECH	3
MEDICAL TECHCIAN	54
PHYSICIAN ASSISTANT	1
LAB MED TECHNICIAN	3
TOTAL	130

D. Access, Quality and Cost in the Direct and Purchased Care Systems

Direct Care

1. The availability of staff directly correlates with cost and access. The total supply of available active duty providers and support staff depends upon the number of authorized billets, which include the billets required for readiness and those used in training programs and day-to-day operations as defined by the OSA model. The supply of Federal civilian and contract providers is dependent upon manning authorizations, funding availability and labor market forces. The demand for healthcare in the direct care system is dependent on the size of the military force, the local beneficiary population, seasonality of use, and the population's health status.

A comprehensive review of access to care within the Continental United States (CONUS) direct care system, examined the percent of appointments meeting access standards and the average days to get an appointment. The data included all primary care appointment types (acute, routine, specialty, and wellness) within CONUS activities since (a) the majority of military provider billets converted were primary care based, (b) conversion hiring occurred at CONUS MTFs, and (c) there were no inpatient specific specialty conversions. A longitudinal study from August 2003 through September 2006 searched for any variation in the defined categories.

Results of the comprehensive review conclude that appointments continue to be within the TRICARE Access Standards.

Purchased Care

2. The availability of network providers and the geographical location of beneficiaries are factors affecting both cost and access of purchased care.

TRICARE beneficiaries enrolled in TRICARE Prime are guaranteed access to care in accordance with established access standards. Military medicine is required to refer beneficiaries into the managed care support network if the wait time in the direct care system exceeds these standards. Navy reviewed Purchased Care metrics on a longitudinal basis from October 2002 - September 2006. The data examined included CONUS Navy-wide inpatient and outpatient purchased care. Inpatient purchased care, measured by Relative Weighted Product (RWP), climbed steadily since 2003, with no appreciable increase when military to civilian conversions began. Outpatient purchased care, measured by Relative Value Unit (RVU), varied over the three fiscal years with no discernable link to military to civilian conversions.

The planned military to civilian conversions to date have not had a measurable impact upon purchased care from the network or access to care. The challenge remains to ensure the 7,790 conversions and 901 divestitures between 2005 and 2013 coupled with the current efforts to fill direct care systems in a highly competitive medical marketplace do not decrease access to care in the direct care system, force care to the

network or increase the cost of healthcare. Table 7 describes the projected conversions and divestitures for FY 2005 – FY 2013.

Table 7. Projected Conversions and Divestitures for FY 2005 – FY 2013

FY	POM 06 Conversions	PDM IV Conversions	Total Conversions	PDM IV Divestitures	Total Active Duty Conversions or Divestitures
2005	1772*	0	1772	0	1772
2006	215	0	215	0	215
2007	689	0	689	0	689
2008	802	234	1036	489	1525
2009	789	234	1023	220	1243
2010	755	246	1001	72	1073
2011	403	250	653	41	694
2012	0	729	729	29	758
2013	0	672	672	50	722
Total	**5425**	**2365**	**7790**	**901**	**8691**

Quality of Care

Navy Medicine demands the same quality of care standards from all employees, including new military to civilian conversion hires, regardless of human resource category (military, Federal civilian, or contractor). No decrease in quality of care has been noted due to military to civilian conversions.

Navy has multiple processes and performance measures to ensure high quality healthcare is being delivered. However, in order to obtain individual position level information the methodology for certification focused on ensuring that the hiring process of Federal civilians or contractors provided the appropriate quality level required.

In order to ensure that the federal civilian recruitment process meets the quantitative and qualitative hiring needs of the activity, a three-step process is used. Specifically,

1. The Navy's Federal civilian recruitment process responds to the demand signal provided by an activity to hire a federal civilian with certain predetermined criteria (knowledge, skills, and abilities). This process ensures the appropriate experience and education requirements are met to ensure the minimum qualifications and the proper grading of the position. This process creates a pool of potential applicants. The pool then is referred to the selecting official of the activity requesting the recruitment action.

2. The activity interviews the pool of candidates and either makes a selection based on predetermined criteria or not. If selecting officials question or are dissatisfied with the qualifications or quality of specific applicants the selecting officials are encouraged to discuss these concerns with their human resource advisors. When concerns are raised,

additional reviews are conducted prior to making a job offer.

3. Credentialing and Privileging

Once the selecting officials tender an offer the candidate is required to meet the condition of the Bureau of Medicine and Surgery (BUMED) Instruction 6320.66D entitled "Credentials Review and Privileging Program". The Credentialing Review and Privileging program does not differentiate between active duty, federal civilian, or contractor. The BUMED instruction references DoD directive 6025.13, entitled "Medical Quality Assurance (MQA) in the Military Health System (MHS)". Neither the BUMED nor DoD instruction differentiates between active duty and civilian (federal civilian or contractors) personnel.

Contractor hiring process

Contract personnel hired are required to meet the same quality standards as other personnel. Credentialing and privileging of contractors use the same process as that is used for Federal civilians.

E. Recruiting and Retention

There is no apparent adverse effect on recruiting and retention at this time. Applicants to direct accession programs are fully trained professionals seeking to join the Navy Medicine team. In most cases, direct accession applicants are looking at the military as a long-term career, so during interviews this subject is mentioned and discussed, thus causing some concern for these applicants; however, there has been little indication that military to civilian conversions have deterred a direct accession applicant's or scholarship applicant's desire to join the Navy.

Losses in Navy Medicine active duty personnel have exceeded gains for some specialties affected by military to civilian conversions. Anecdotally, some medical officers have elected to retire and accept military to civilian conversion positions. In a few specialties, some officers view additional military to civilian conversions as jeopardizing their career potential and have made the decision to leave prior to the 10-year active duty mark. Despite these findings, the military to civilian conversions have had a minimal impact on retention to date.

F. Estimated Cost

The current cost of the 689 billets identified for conversion in FY 07 based on the "fully burdened" (total cost to the Government) cost methodology is $59M. The estimated cost of the FY 07 conversions based on the Altarum model is $55M for Government Service civilians and contractors.

The challenge remains to manage and sustain the hiring of healthcare professions such as specialized physicians, dentists, pharmacists, nurses, other providers and various

medical technicians where supply is projected to remain steady or grow at a slower rate than demand within planned budget and civilian pay authority.

G. Readiness

As discussed earlier, the military billets selected for conversion were above the operational requirement identified by the OSA model and validated by the CNA Corporation. The OSA model does not take into account all missions Navy Medicine is directed to accomplish and this omission is creating a stress on the direct care system. Increasing shortages caused by the inability to hire health professionals and additional cuts will cause an increased migration to the private sector care. Shifting more care to the network will increase the overall cost of military healthcare. Sustainment of the deployment tempo in current GWOT operations will be challenging over time, particularly as an increasing number of Individual Augmentation requirements are filled by Navy Medicine.

H. Identification of conversions

Appendix C is a detailed table of the individual military billets to be converted in FY08, including the location of each position and local availability for hire. Table 8 displays the breakdown of officers by designator and rank. Table 9 displays the breakdown of enlisted by rating and rank.

Table 8. Officer Billets Converted by Designator and Rank for FY 08

CORPS	Captain O-6	Commander O-5	Lieutenant Commander O-4	Lieutenant O-3	Lieutenant Junior grade O-2	Ensign O-1	Grand Total
General Medical Department Officer (2XXX)	1	0	1	0	0	0	2
Medical Corps (21XX)	1	7	18	10	0	0	36
Dental Corps (22XX)	8	13	12	12	0	0	45
Medical Service Corps (23XX)	0	1	11	25	11	1	49
Nurse Corps (29XX)	1	1	3	13	6	5	29
Grand Total	**11**	**22**	**45**	**60**	**17**	**6**	**161**

Table 9. Enlisted Billets Converted By Rating and Rank for FY 08

BILLET TITLE	E-9	E-8	E-7	E-6	E-5	E-4	E-3	Grand Total
Hospital corpsman (HM)	2	3	10	76	145	194	251	681
Dental corpsman (DT)	0	0	0	5	28	46	112	191
Storekeeper (SK)	0	0	0	0	1	0	2	3
Grand Total	**2**	**3**	**10**	**81**	**174**	**240**	**365**	**875**

Note that Table 8 and 9 totals include 107 enlisted and 45 officer billets from NH Keflavik and NMCL LaMaddalena to be deleted and not converted.

I. Conclusions

Based on cost and availability data, Navy can only partially certify for FY 07. Data suggests that 559 billets (Appendix B) will be cost-effective to convert and local labor markets can support availability. 130 billets (Appendix A) will not be able to be filled due to cost or availability and should not be certified for conversion. Consistent with the legal requirements of FY 06 National Defense Authorization Act (Sec 744) and FY 07 National Defense Authorization Act (Sec 742) 130 military positions will be restored as expeditiously as possible.

FY 07 Appendix A - High Risk Billets

ACTIVITY2	Zip Code	GS TITLE 2	CivOcc Code2	Cost of Military Billet	FY07 CIVRATE
NNMC BETHESDA	20889	Psychology Aid and Technician	181	28,140	$53,530
NNMC BETHESDA	20889	Psychology Aid and Technician	181	28,140	$53,530
NNMC BETHESDA	20889	Psychology Aid and Technician	181	28,140	$53,530
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,140	$54,320
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,140	$54,320
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,140	$54,320
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,140	$54,320
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,140	$54,320
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,140	$54,320
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
NHOSP GLAKES	60088	Psychology Aid and Technician	181	28,140	$54,282
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,140	$50,991
CC GROTON CT	6349	Psychology Aid and Technician	181	28,140	$54,516
NH OAK HARBOR WA	98277	Psychology Aid and Technician	181	28,140	$53,578
NH PENSACOLA FL	32508	Physician's Assistant	603	59,155	$75,465
NNMC BETHESDA	20889	Pharmacy Technician	661	28,140	$43,214
NNMC BETHESDA	20889	Pharmacy Technician	661	28,140	$43,214
NMC SDGO CA	92140	Pharmacy Technician	661	28,140	$43,852
NMC SDGO CA	92140	Pharmacy Technician	661	28,140	$43,852
NMC SDGO CA	92140	Nurse	610	59,155	$73,170
NMC SDGO CA	92140	Nurse	610	59,155	$73,170
NMC SDGO CA	92140	Nurse	610	59,155	$73,170
CC NEWPT RI	2840	Nurse	610	59,155	$73,577
NNMC BETHESDA	20889	Medical Technologist: Nuc Med	644	28,140	$65,477
NNMC BETHESDA	20889	Medical Technologist: Nuc Med	644	28,140	$65,477
CC GROTON CT	6349	Medical Technologist: Nuc Med	644	28,140	$66,683
NNMC BETHESDA	20889	Medical Technologist: Lab Tech	644	28,140	$65,477
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,140	$66,442
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,140	$66,442
NMEDCEN PTSMOUTH	23708	Medical Technologist: ENT Tech	644	28,140	$68,686
NMC SDGO CA	92140	Medical Technologist: ENT Tech	644	28,140	$73,170
NMC SDGO CA	92140	Medical Technologist: ENT Tech	644	28,140	$73,170
NMC SDGO CA	92140	Medical Technologist: ENT Tech	644	28,140	$73,170
NMEDCEN PTSMOUTH	23708	Medical Technologist: ENT Tech	644	28,140	$68,686

NHOSP GLAKES	60088	Medical Technologist: ENT Tech	644	28,140	$73,119
CC NEWPT RI	2840	Medical Technologist: ENT Tech	644	28,140	$73,577
CC NEWPT RI	2840	Medical Technologist: ENT Tech	644	28,140	$73,577
CC PTSMTH NH	23708	Medical Technician	645	28,140	$49,152
CC PTSMTH NH	23708	Medical Technician	645	28,140	$49,152
CC PTSMTH NH	23708	Medical Technician	645	28,140	$49,152
NMC SDGO CA	92140	Medical Technician	645	28,140	$48,880
BMEDCL EC LKHU	8733	Medical Technician	645	28,140	$50,529
BMEDCL EC LKHU	8733	Medical Technician	645	28,140	$50,529
NNMC BETHESDA	20889	Medical Technician	645	28,140	$48,171
NNMC BETHESDA	20889	Medical Technician	645	28,140	$48,171
NNMC BETHESDA	20889	Medical Technician	645	28,140	$48,171
NNMC BETHESDA	20889	Medical Technician	645	28,140	$48,171
NHOSP GLAKES	60088	Medical Technical Asst: Endo Tech	650	28,140	$66,397
NMC SDGO CA	92140	Medical Technical Asst: Derm Tech	650	28,140	$66,442
NSHS SDIEGO	92140	Medical Technical Asst: Derm Tech	650	28,140	$66,442
NMC HAWAII HI	96860	Medical Technical Assistant: Rad Hlth	650	28,140	$62,371
NMC SDGO CA	92140	Medical Technical Assistant: Rad Hlth	650	28,140	$66,442
NNMC BETHESDA	20889	Medical Technical Assistant: Rad Hlth	650	28,140	$65,477
NH CHARLESTON SC	29445	Medical Technical Assistant: Rad Hlth	650	28,140	$62,371
NHBRCL BANGOR	98315	Medical Technical Assistant: Rad Hlth	650	28,140	$65,535
CC PTSMTH NH	23708	Medical Technical Assistant: Rad Hlth	650	28,140	$66,812
NNMC BETHESDA	20889	Medical Technical Assistant: CV Tech	650	28,140	$65,477
NNMC BETHESDA	20889	Medical Technical Assistant: CV Tech	650	28,140	$65,477
NNMC BETHESDA	20889	Medical Technical Assistant: CV Tech	650	28,140	$65,477
NMEDCEN PTSMOUTH	23708	Medical Technical Assistant: CV Tech	650	28,140	$62,371
NH PENSACOLA FL	32508	Medical Technical Assistant: CV Tech	650	28,140	$62,371
NMC SDGO CA	92140	Medical Technical Assistant: CV Tech	650	28,140	$66,442
NNMC BETHESDA	20889	Medical Technical Assistant	650	28,140	$65,477
NMEDCEN PTSMOUTH	23708	Medical Technical Assistant	650	28,140	$62,371
NHOSP GLAKES	60088	Medical Technical Assistant	650	28,140	$66,397
NMC SDGO CA	92140	Medical Technical Assistant	650	28,140	$66,442
NNMC BETHESDA	20889	Diagnostic Radiologic Technologist	647	28,140	$53,530
NNMC BETHESDA	20889	Diagnostic Radiologic Technologist	647	28,140	$53,530
NMEDCEN PTSMOUTH	23708	Diagnostic Radiologic Technologist	647	28,140	$50,991
NMEDCEN PTSMOUTH	23708	Diagnostic Radiologic Technologist	647	28,140	$50,991
NMC SDGO CA	92140	Diagnostic Radiologic Technologist	647	28,140	$54,320
NMC SDGO CA	92140	Diagnostic Radiologic Technologist	647	28,140	$54,320
NMC SDGO CA	92140	Diagnostic Radiologic Technologist	647	28,140	$54,320
NMC SDGO CA	92140	Diagnostic Radiologic Technologist	647	28,140	$54,320

FY 07 Appendix A - High Risk Billets

VBRDENCL PENT	20310	Dental Officer: Prostho	680	59,155	$156,953
NDC NE NEWPORT	2840	Dental Officer: Prostho	680	59,155	$160,153
BDCL CBC PORHUE	93043	Dental Officer: Perio	680	59,155	$161,521
NDC SW SAN DIEGO	92140	Dental Officer: Perio	680	59,155	$159,267
NDC GREAT LAKES	60088	Dental Officer: Perio	680	59,155	$159,158
NNDC BETHESDA	20889	Dental Officer: Oral Path	680	59,155	$156,953
NDC SW SAN DIEGO	92140	Dental Officer: Oral Max Sgn	680	59,155	$159,267
NDC GREAT LAKES	60088	Dental Officer: Oral Max Sgn	680	59,155	$159,158
NDCLBR S OCEAN	23460	Dental Officer: Endo	680	59,155	$149,508
NDC SW SAN DIEGO	92140	Dental Officer: Endo	680	59,155	$159,267
NDC GREAT LAKES	60088	Dental Officer: Endo	680	59,155	$159,158
NDC P ISL SC	29902	Dental Officer: Endo	680	59,155	$149,508
NNDC BETHESDA	20889	Dental Officer	680	59,155	$156,953
BRDENC KEFLAVIK	99999	Dental Officer	680	59,155	$149,508
NDCLBR NOLA	70152	Dental Officer	680	59,155	$149,508
NDCLBR NOLA	70152	Dental Officer	680	59,155	$149,508
NDCLBR S WHIDB	98277	Dental Officer	680	59,155	$157,095
NDC BR INGLESIDE	78363	Dental Officer	680	59,155	$149,508
NDCLBR S DALLA	78233	Dental Officer	680	59,155	$149,508
DRESCHINST GLKES	60088	Dental Officer	680	59,155	$159,158
NDC SW SAN DIEGO	92140	Dental Officer	680	59,155	$159,267
NDC SW SAN DIEGO	92140	Dental Officer	680	59,155	$159,267
NDC GREAT LAKES	60088	Dental Officer	680	59,155	$159,158
NDCLBR S WILGR	19090	Dental Officer	680	59,155	$157,417
NDC P ISL SC	29902	Dental Officer	680	59,155	$149,508
NDC G COAST PNSC	32508	Dental Officer	680	59,155	$149,508
NDC EU PLES IT	99999	Dental Officer	680	59,155	$149,508
NDCLBR S DALLA	78233	Dental Officer	680	59,155	$149,508
NDC MLANT NORVA	23521	Dental Officer	680	59,155	$149,508
NDC GREAT LAKES	60088	Dental Officer	680	59,155	$159,158
NNMC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NDCLBR S LEMOO	93246	Dental Assistant	681	28,140	$41,164
NDCLBR S LEMOO	93246	Dental Assistant	681	28,140	$41,164

FY 07 Appendix A - High Risk Billets

NNDC BETHESDA	20889	Dental Assistant	681	28,140	$43,214
NDC CP PENDLETON	92055	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
BDCL CBC PORHUE	93043	Dental Assistant	681	28,140	$44,471
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852

FY 07 Appendix B - Low to Moderate Risk Billets

ACTIVITY 2	Zip Code	GS TITLE 2	Civ Occ Code2	Cost of Military Billet	FY07 CIVRATE
NMEDRSCHCEN	20889	Chemistry	1320	59,460	$112,916
NMC ANPOLIS MD	21402	Corrective Therapist	635	28,140	$72,107
NNMC BETHESDA	20889	Corrective Therapist	635	28,140	$72,107
NMEDCEN PTSMOUTH	23708	Corrective Therapist	635	28,140	$68,686
NH PENSACOLA FL	32508	Corrective Therapist	635	28,140	$68,686
NMC QUANTICO VA	22132	Corrective Therapist	635	28,140	$72,107
NMC SDGO CA	92140	Corrective Therapist	635	28,140	$73,170
NNMC BETHESDA	20889	Corrective Therapist	635	28,140	$72,107
BRMCL NS SDGO	92133	Corrective Therapist	635	28,140	$73,170
BMC NSA MEMPHIS	38054	Corrective Therapist	635	28,140	$68,686
NH CHARLESTON SC	29445	Corrective Therapist	635	28,140	$68,686
NH OAK HARBOR WA	98277	Corrective Therapist	635	28,140	$72,172
NMEDCEN PTSMOUTH	23708	Corrective Therapist Cast Rm Tech	635	28,140	$68,686
BMC NSA MEMPHIS	38054	Corrective Therapist Cast Rm Tech	635	28,140	$68,686
NMEDCEN PTSMOUTH	23708	Dental Assistant	681	28,140	$41,164
NMEDCEN PTSMOUTH	23708	Dental Assistant	681	28,140	$41,164
NMC SDGO CA	92140	Dental Assistant	681	28,140	$43,852
NMC SDGO CA	92140	Dental Assistant	681	28,140	$43,852
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
WPSTA BDENCL NOR	23691	Dental Assistant	681	28,140	$41,164
PHBASE BDENC NOR	23460	Dental Assistant	681	28,140	$41,164
PHBASE BDENC NOR	23460	Dental Assistant	681	28,140	$41,164
NDCLBR DAM NECK	23461	Dental Assistant	681	28,140	$41,164
NDCLBR S OCEAN	23460	Dental Assistant	681	28,140	$41,164
NDCLBR PG MONTER	95940	Dental Assistant	681	28,140	$41,164
NDCLBR S N ISL	92135	Dental Assistant	681	28,140	$43,852
NDCLBR S N ISL	92135	Dental Assistant	681	28,140	$43,852
NDCLBR S N ISL	92135	Dental Assistant	681	28,140	$43,852
BRDCL MCCDC QUAN	22134	Dental Assistant	681	28,140	$43,214
BRDCL MCCDC QUAN	22134	Dental Assistant	681	28,140	$43,214
NDCLBR S WHIDB	98277	Dental Assistant	681	28,140	$43,252
NDCLBR S DALLA	78233	Dental Assistant	681	28,140	$41,164
NDCLBR S KGVL	78200	Dental Assistant	681	28,140	$41,164
NDCLBR NOLA	70152	Dental Assistant	681	28,140	$41,164
BDC WPNSTA CHASN	29445	Dental Assistant	681	28,140	$41,164
BRDENCLINIC SBGA	31547	Dental Assistant	681	28,140	$41,164
BRDENCLINIC SBGA	31547	Dental Assistant	681	28,140	$41,164
BRDCL WNY DC	20374	Dental Assistant	681	28,140	$43,214
NDC PEARL HARBOR	96860	Dental Assistant	681	28,140	$41,164

NDC PEARL HARBOR	96860	Dental Assistant	681	28,140	$41,164
NDC PEARL HARBOR	96860	Dental Assistant	681	28,140	$41,164
NDC P ISL SC	29902	Dental Assistant	681	28,140	$41,164
NDC PEARL HARBOR	96860	Dental Assistant	681	28,140	$41,164
NDC PEARL HARBOR	96860	Dental Assistant	681	28,140	$41,164
NDC PEARL HARBOR	96860	Dental Assistant	681	28,140	$41,164
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC CP PENDLETON	92055	Dental Assistant	681	28,140	$43,852
NDC CP PENDLETON	92055	Dental Assistant	681	28,140	$43,852
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC NORF D A DET	23521	Dental Assistant	681	28,140	$41,164
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,140	$43,852
NH CP PENDLETON	92055	Dental Assistant	681	28,140	$43,852
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC P ISL SC	29902	Dental Assistant	681	28,140	$41,164
NDC P ISL SC	29902	Dental Assistant	681	28,140	$41,164
NDC P ISL SC	29902	Dental Assistant	681	28,140	$41,164
NDC G COAST PNSC	32508	Dental Assistant	681	28,140	$41,164
BRDCL EVERETT WA	98207	Dental Assistant	681	28,140	$43,252
NDC NW BREM	98311	Dental Assistant	681	28,140	$43,252
NDC SE JAX FL	32214	Dental Assistant	681	28,140	$41,164

BRDCL MCCDC QUAN	22134	Dental Assistant	681	28,140	$43,214
BDC WPNSTA CHASN	29445	Dental Assistant	681	28,140	$41,164
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC GREAT LAKES	60088	Dental Assistant	681	28,140	$43,821
NDC CP LEJEUNE	28547	Dental Assistant	681	28,140	$42,192
NDC MLANT NORVA	23521	Dental Assistant	681	28,140	$41,164
NDC G COAST PNSC	32508	Dental Assistant	681	28,140	$41,164
NMC SDGO CA	92140	Dental Laboratory Aid and Technician	683	28,140	$60,157
NDC CP PENDLETON	92055	Dental Laboratory Aid and Technician	683	28,140	$60,157
NDC MLANT NORVA	23521	Dental Laboratory Aid and Technician	683	28,140	$56,472
NDC MLANT NORVA	23521	Dental Laboratory Aid and Technician	683	28,140	$56,472
NHOSP GLAKES	60088	Dental Laboratory Aid and Technician	683	28,140	$60,117
CC PTSMTH NH	23708	Diagnostic Radiologic Technologist	647	28,140	$54,621
NH PENSACOLA FL	32508	Diagnostic Radiologic Technologist	647	28,140	$50,991
NH PENSACOLA FL	32508	Diagnostic Radiologic Technologist	647	28,140	$50,991
NH PENSACOLA FL	32508	Diagnostic Radiologic Technologist	647	28,140	$50,991
NHOSP GLAKES	60088	Diagnostic Radiologic Technologist	647	28,140	$54,282
NHOSP GLAKES	60088	Diagnostic Radiologic Technologist	647	28,140	$54,282
NHOSP GLAKES	60088	Diagnostic Radiologic Technologist	647	28,140	$54,282
BRCL S OCEA	23460	Diagnostic Radiologic Technologist	647	28,140	$50,991
BRMCL S MIRAMA	92145	Diagnostic Radiologic Technologist	647	28,140	$54,320
BRMCL WNY DC	20374	Diagnostic Radiologic Technologist	647	28,140	$53,530
NBMCL WPS EARLE	7722	Diagnostic Radiologic Technologist	647	28,140	$53,689
VHOSP JAX FL	32214	Diagnostic Radiologic Technologist	647	28,140	$50,991
NHBRCL EVERETT	98207	Diagnostic Radiologic Technologist	647	28,140	$53,578
CC NEW ORLNS	70152	Diagnostic Radiologic Technologist	647	28,140	$50,991
BRMCL S FALLON	89406	Diagnostic Radiologic Technologist	647	28,140	$50,991
CC NEWPT RI	2840	Diagnostic Radiologic Technologist	647	28,140	$54,621
NH CP PENDLETON	92055	Diagnostic Radiologic Technologist	647	28,140	$54,320
NMC HAWAII HI	96860	Diagnostic Radiologic Technologist	647	28,140	$50,991
NMC HAWAII HI	96860	Diagnostic Radiologic Technologist	647	28,140	$50,991
NNMC BETHESDA	20889	Dietician and Nutrition	630	59,155	$79,224
NNDC BETHESDA	20889	Health Systems Specialist	671	59,155	$94,954
NNDC BETHESDA	20889	Health Systems Specialist	671	59,155	$94,954
NDC PEARL HARBOR	96860	Health Systems Specialist	671	59,155	$90,449
NMRSCHU 2 JAK IN	99999	Health Systems Specialist	671	59,460	$90,449
NDC NE NEWPORT	2840	Health Systems Specialist	671	59,155	$96,890
NDC P ISL SC	29902	Health Systems Specialist	671	59,155	$90,449

NDC P ISL SC	29902	Health Systems Specialist	671	59,155	$90,449
NDC EU PLES IT	99999	Health Systems Specialist	671	59,155	$90,449
NDC YOKOSUKA JA	99999	Health Systems Specialist	671	59,155	$90,449
NNMC BETHESDA	20889	Medical Equip Repair (WG)	4805	28,140	$79,224
NHOSP GLAKES	60088	Medical Equip Repair (WG)	4805	28,140	$80,337
NHOSP GLAKES	60088	Medical Equip Repair (WG)	4805	28,140	$80,337
VHOSP JAX FL	32214	Medical Equip Repair (WG)	4805	28,140	$75,465
NMC SDGO CA	92140	Medical Equip Repair (WG)	4805	28,140	$80,392
NMC SDGO CA	92140	Medical Equip Repair (WG)	4805	28,140	$80,392
NH PENSACOLA FL	32508	Medical Equip Repair (WG)	4805	28,140	$75,465
NH CHARLESTON SC	29445	Medical Equip Repair (WG)	4805	28,140	$75,465
CC NEWPT RI	2840	Medical Equip Repair (WG)	4805	28,140	$80,839
BRMCL WPNSTA YTW	23691	Medical Technical Assistant: Rad Hlth	650	28,140	$62,371
VHOSP JAX FL	32214	Medical Technical Assistant: Rad Hlth	650	28,140	$62,371
CC NEWPT RI	2840	Medical Technical Asst: Derm Tech	650	28,140	$66,812
CC NEWPT RI	2840	Medical Technical Asst: Derm Tech	650	28,140	$66,812
NNMC BETHESDA	20889	Medical Technical Asst: Optician	650	28,140	$65,477
NHOSP GLAKES	60088	Medical Technical Asst: Optician	650	28,140	$66,397
NMC QUANTICO VA	22132	Medical Technical Asst: Optician	650	28,140	$65,477
NMC SDGO CA	92140	Medical Technical Asst: Optician	650	28,140	$66,442
NMC SDGO CA	92140	Medical Technical Asst: Optician	650	28,140	$66,442
NMC SDGO CA	92140	Medical Technical Asst: Optician	650	28,140	$66,442
NH CORPUS CHRIST	78419	Medical Technical Asst: Optician	650	28,140	$62,371
MCRD PARRIS ISLD	29902	Medical Technical Asst: Optician	650	28,140	$62,371
BRMCL ARL ANNEX	20370	Medical Technical Asst: Optician	650	28,140	$65,477
BRMCL NTC SDGO	92133	Medical Technical Asst: Optician	650	28,140	$66,442
BRMDCL SMERIDI	39309	Medical Technical Asst: Optician	650	28,140	$62,371
NHBRCL BANGOR	98315	Medical Technical Asst: Optician	650	28,140	$65,535
NBHCL KINGS BAY	31547	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
NOSTRA DET CPLEJ	28542	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
NOSTRA DET NORF	23521	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371

OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,140	$62,371
NHOSP GLAKES	60088	Medical Technical Asst: Optician	650	28,140	$66,397
NH CP PENDLETON	92055	Medical Technical Asst: Optician	650	28,140	$66,442
NH BREMERTON WA	98310	Medical Technical Asst: Optician	650	28,140	$65,535
NMC HAWAII HI	96860	Medical Technical Asst: Optician	650	28,140	$62,371
BRMEDCL N BRSWK	4011	Medical Technician	645	28,140	$45,886
NMC ANPOLIS MD	21402	Medical Technician	645	28,140	$48,171
DMCL COLUMBIA	21044	Medical Technician	645	28,140	$48,171
BMCL BURKE	20841	Medical Technician	645	28,140	$48,171
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886

NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NH PCOLA FH PC D	32508	Medical Technician	645	28,140	$45,886
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NMC QUANTICO VA	22132	Medical Technician	645	28,140	$48,171
NMC QUANTICO VA	22132	Medical Technician	645	28,140	$48,171
NMC QUANTICO VA	22132	Medical Technician	645	28,140	$48,171
NMC QUANTICO VA	22132	Medical Technician	645	28,140	$48,171
VHOSP JAX FL	32214	Medical Technician	645	28,140	$45,886
VHOSP JAX FL	32214	Medical Technician	645	28,140	$45,886

FY 07 Appendix B - Low to Moderate Risk Billets

VHOSP JAX FL	32214	Medical Technician	645	28,140	$45,886
VHOSP JAX FL	32214	Medical Technician	645	28,140	$45,886
BRMCL ATLANTA GA	30060	Medical Technician	645	28,140	$46,938
NBHCL KY WEST FL	33040	Medical Technician	645	28,140	$45,886
NBHCL KY WEST FL	33040	Medical Technician	645	28,140	$45,886
NBHCL KY WEST FL	33040	Medical Technician	645	28,140	$45,886
NH CORPUS CHRIST	78419	Medical Technician	645	28,140	$45,886
NH CORPUS CHRIST	78419	Medical Technician	645	28,140	$45,886
NMC PATUXENT	20670	Medical Technician	645	28,140	$48,171
BRMCL S FALLON	89406	Medical Technician	645	28,140	$45,886
OMI PENSACOLA	32512	Medical Technician	645	28,140	$45,886
BRMCL NS NORFOLK	23511	Medical Technician	645	28,140	$45,886
BRMCL NS NORFOLK	23511	Medical Technician	645	28,140	$45,886
BRMCL NS NORFOLK	23511	Medical Technician	645	28,140	$45,886
BRCL S OCEA	23460	Medical Technician	645	28,140	$45,886
BRMCL B LC	23521	Medical Technician	645	28,140	$45,886
BRMCL NSY NORVA	23708	Medical Technician	645	28,140	$45,886
BRMDCL S WHIFD	32570	Medical Technician	645	28,140	$45,886
BRMDCL S WHIFD	32570	Medical Technician	645	28,140	$45,886
BRMCL WNY DC	20374	Medical Technician	645	28,140	$48,171
BRMCL WNY DC	20374	Medical Technician	645	28,140	$48,171
BRMCL WNY DC	20374	Medical Technician	645	28,140	$48,171
NBHCL MAYPORT FL	32228	Medical Technician	645	28,140	$45,886
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
BRMEDCL N BRSWK	4011	Medical Technician	645	28,140	$45,886
NBMCL WPS EARLE	7722	Medical Technician	645	28,140	$48,313
BMEDCL S WILGR	19090	Medical Technician	645	28,140	$48,313
BRMDCL S KINGS	78363	Medical Technician	645	28,140	$45,886
NBHCL ALBANY GA	31704	Medical Technician	645	28,140	$45,886
NBHCL ALBANY GA	31704	Medical Technician	645	28,140	$45,886
NBMCL WPS EARLE	7722	Medical Technician	645	28,140	$48,313
NBMCL WPS EARLE	7722	Medical Technician	645	28,140	$48,313
BRMCL F DC	20374	Medical Technician	645	28,140	$48,171
NHBRCL VICP	17015	Medical Technician	645	28,140	$48,313

BRMDCL SMERIDI	39309	Medical Technician	645	28,140	$45,886
BRMDCL SMERIDI	39309	Medical Technician	645	28,140	$45,886
BRMDCL SMERIDI	39309	Medical Technician	645	28,140	$45,886
NHBRCL NSCS ATHE	30606	Medical Technician	645	28,140	$46,938
BRMCL S FALLON	89406	Medical Technician	645	28,140	$45,886
BRMEDCL N BRSWK	4011	Medical Technician	645	28,140	$45,886
BRMCL YUMA	85369	Medical Technician	645	28,140	$45,886
BRMCL YUMA	85369	Medical Technician	645	28,140	$45,886
NHBRCL PASCAGOUL	39567	Medical Technician	645	28,140	$45,886
NHBRCL PASCAGOUL	39567	Medical Technician	645	28,140	$45,886
NHBRCL PASCAGOUL	39567	Medical Technician	645	28,140	$45,886
BMC NSA MEMPHIS	38054	Medical Technician	645	28,140	$45,886
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
BMC NSA MEMPHIS	38054	Medical Technician	645	28,140	$45,886
BMC NSA MEMPHIS	38054	Medical Technician	645	28,140	$45,886
CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058

CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
BRMEDCL BALLSTON	12866	Medical Technician	645	28,140	$45,886
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
CC GROTON CT	6349	Medical Technician	645	28,140	$49,058
NNMC BETHESDA	20889	Medical Technician	645	28,140	$48,171
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,140	$45,886
NHBRCL BANGOR	98315	Medical Technician	645	28,140	$48,213
BRMCL D NECK VA	23461	Medical Technician	645	28,140	$45,886
NHBRCL EVERETT	98207	Medical Technician	645	28,140	$48,213
NH CHERRY POINT	28533	Medical Technician	645	28,140	$47,031
NH BEAUFORT	29902	Medical Technician	645	28,140	$45,886
NH OAK HARBOR WA	98277	Medical Technician	645	28,140	$48,213
NH OAK HARBOR WA	98277	Medical Technician	645	28,140	$48,213
NH OAK HARBOR WA	98277	Medical Technician	645	28,140	$48,213
NH OAK HARBOR WA	98277	Medical Technician	645	28,140	$48,213
NH OAK HARBOR WA	98277	Medical Technician	645	28,140	$48,213
NH OAK HARBOR WA	98277	Medical Technician	645	28,140	$48,213

CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
CC NEW ORLNS	70152	Medical Technician	645	28,140	$45,886
NH CHARLESTON SC	29445	Medical Technician	645	28,140	$45,886
NH CHARLESTON SC	29445	Medical Technician	645	28,140	$45,886
NH CHARLESTON SC	29445	Medical Technician	645	28,140	$45,886
NH CHARLESTON SC	29445	Medical Technician	645	28,140	$45,886
NH CHARLESTON SC	29445	Medical Technician	645	28,140	$45,886
NH PENSACOLA FL	32508	Medical Technician	645	28,140	$45,886
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NPT MC U DT	2840	Medical Technician	645	28,140	$49,152
CC NEWPT RI	2840	Medical Technician	645	28,140	$49,152
CC NEWPT RI	2840	Medical Technician	645	28,140	$49,152
CC NEWPT RI	2840	Medical Technician	645	28,140	$49,152
NHOSP GLAKES	60088	Medical Technician	645	28,140	$48,847
CC NEWPT RI	2840	Medical Technician	645	28,140	$49,152
CC NEWPT RI	2840	Medical Technician	645	28,140	$49,152
NBHCL KINGS BAY	31547	Medical Technician	645	28,140	$45,886
NHBRCL PASCAGOUL	39567	Medical Technician	645	28,140	$45,886
NH CP LEJEUNE NC	28542	Medical Technician	645	28,140	$47,031
NH CP LEJEUNE NC	28542	Medical Technician	645	28,140	$47,031
NH CP LEJEUNE NC	28542	Medical Technician	645	28,140	$47,031
NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886
NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886

NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886
NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886
NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886
NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886
NMC HAWAII HI	96860	Medical Technician	645	28,140	$45,886
NMC QUANTICO VA	22132	Medical Technician	645	28,140	$48,171
BMC SJRB FW T	76127	Medical Technician	645	28,140	$45,886
NHOSP GLAKES	60088	Medical Technologist: Cyto Tech	644	28,140	$66,397
NMC SDGO CA	92140	Medical Technologist: Cyto Tech	644	28,140	$66,442
AHS FT S HOUSTON	78234	Medical Technologist: Cyto Tech	644	28,140	$62,371
NH CP LEJEUNE NC	28542	Medical Technologist: Cyto Tech	644	28,140	$63,928
NNMC BETHESDA	20889	Medical Technologist: ENT Tech	644	28,140	$72,107
NMEDCEN PTSMOUTH	23708	Medical Technologist: Hemo/aph	644	28,140	$68,686
NNMC BETHESDA	20889	Medical Technologist: Histo Tech	644	28,140	$65,477
NNMC BETHESDA	20889	Medical Technologist: Histo Tech	644	28,140	$65,477
NH CP LEJEUNE NC	28542	Medical Technologist: Histo Tech	644	28,140	$63,928
NMC SDGO CA	92140	Medical Technologist: Histo Tech	644	28,140	$66,442
NMC ANPOLIS MD	21402	Medical Technologist: Lab Tech	644	28,140	$65,477
NMEDCEN PTSMOUTH	23708	Medical Technologist: Lab Tech	644	28,140	$62,371
NMEDCEN PTSMOUTH	23708	Medical Technologist: Lab Tech	644	28,140	$62,371
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,140	$66,397
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,140	$66,397
VHOSP JAX FL	32214	Medical Technologist: Lab Tech	644	28,140	$62,371
VHOSP JAX FL	32214	Medical Technologist: Lab Tech	644	28,140	$62,371
VHOSP JAX FL	32214	Medical Technologist: Lab Tech	644	28,140	$62,371
BRMCL ATLANTA GA	30060	Medical Technologist: Lab Tech	644	28,140	$63,801
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,140	$66,442
BRMCL NS NORFOLK	23511	Medical Technologist: Lab Tech	644	28,140	$62,371
BRMCL WPNSTA YTW	23691	Medical Technologist: Lab Tech	644	28,140	$62,371
BRMCL S NISL	92135	Medical Technologist: Lab Tech	644	28,140	$66,442
BRMCL B CORO	92155	Medical Technologist: Lab Tech	644	28,140	$66,442
BRMCL NSWC DLGN	22448	Medical Technologist: Lab Tech	644	28,140	$65,477
BRMCL NOS IND HD	20640	Medical Technologist: Lab Tech	644	28,140	$65,477
BRMCL YUMA	85369	Medical Technologist: Lab Tech	644	28,140	$62,371
CC GROTON CT	6349	Medical Technologist: Lab Tech	644	28,140	$66,683
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,140	$66,397
NMC PATUXENT	20670	Medical Technologist: Lab Tech	644	28,140	$65,477
CC NEW ORLNS	70152	Medical Technologist: Lab Tech	644	28,140	$62,371
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,140	$66,397
CC NEWPT RI	2840	Medical Technologist: Lab Tech	644	28,140	$66,812

NHBRCL PASCAGOUL	39567	Medical Technologist: Lab Tech	644	28,140	$62,371
NH CP PENDLETON	92055	Medical Technologist: Lab Tech	644	28,140	$66,442
NH CP PENDLETON	92055	Medical Technologist: Lab Tech	644	28,140	$66,442
NMC HAWAII HI	96860	Medical Technologist: Lab Tech	644	28,140	$62,371
NMC HAWAII HI	96860	Medical Technologist: Lab Tech	644	28,140	$62,371
NMC HAWAII HI	96860	Medical Technologist: Lab Tech	644	28,140	$62,371
NH PENSACOLA FL	32508	Medical Technologist: Lab Tech	644	28,140	$62,371
NMEDCEN PTSMOUTH	23708	Medical Technologist: Nuc Med	644	28,140	$62,371
NHOSP GLAKES	60088	Medical Technologist: Nuc Med	644	28,140	$66,397
NSHS PORTSMOUTH	23708	Medical Technologist: Nuc Med	644	28,140	$62,371
CC PTSMTH NH	23708	Medical Technologist: Nuc Med	644	28,140	$66,812
NH CHARLESTON SC	29445	Medical Technologist: Nuc Med	644	28,140	$62,371
NNMC BETHESDA	20889	Medical Technologist: Ocular Tech	644	28,140	$72,107
NNMC BETHESDA	20889	Medical Technologist: Ocular Tech	644	28,140	$72,107
NMC SDGO CA	92140	Medical Technologist: Ocular Tech	644	28,140	$73,170
NMC SDGO CA	92140	Medical Technologist: Ocular Tech	644	28,140	$73,170
NMEDCEN PTSMOUTH	23708	Medical Technologist: Ocular Tech	644	28,140	$68,686
NMC SDGO CA	92140	Medical Technologist: Ocular Tech	644	28,140	$73,170
NSHS SDIEGO	92140	Medical Technologist: Ocular Tech	644	28,140	$73,170
NH CHARLESTON SC	29445	Medical Technologist: Ocular Tech	644	28,140	$68,686
CC GROTON CT	6349	Medical Technologist: Urol Tech	644	28,140	$66,683
NMEDCEN PTSMOUTH	23708	Medical Technologist: Urol Tech	644	28,140	$62,371
NNMC BETHESDA	20889	Medical Technologist: Urol Tech	644	28,140	$65,477
NMC SDGO CA	92140	Medical Technologist: Urol Tech	644	28,140	$66,442
NSHS SDIEGO	92140	Medical Technologist: Urol Tech	644	28,140	$66,442
NMC ANPOLIS MD	21402	Nurse	610	59,155	$72,107
NHOSP GLAKES	60088	Nurse	610	59,155	$73,119
NHOSP GLAKES	60088	Nurse	610	59,155	$73,119
NMC PATUXENT	20670	Nurse	610	59,155	$72,107
BMCL BURKE	20841	Nurse	610	59,155	$72,107
DMCL COLUMBIA	21044	Nurse	610	59,155	$72,107
MEDSCLAB PNCLA	32512	Optometrist	662	59,460	$75,465
CC GROTON CT	6349	Pharmacist	660	59,155	$80,683
NH CHARLESTON SC	29445	Pharmacist	660	59,155	$75,465
CC PTSMTH NH	23708	Pharmacy Technician	661	28,140	$44,095
NMC ANPOLIS MD	21402	Pharmacy Technician	661	28,140	$43,214
NMEDCEN PTSMOUTH	23708	Pharmacy Technician	661	28,140	$41,164
NH PENSACOLA FL	32508	Pharmacy Technician	661	28,140	$41,164
NH PENSACOLA FL	32508	Pharmacy Technician	661	28,140	$41,164
NHOSP GLAKES	60088	Pharmacy Technician	661	28,140	$43,821

NHOSP GLAKES	60088	Pharmacy Technician	661	28,140	$43,821
NMC QUANTICO VA	22132	Pharmacy Technician	661	28,140	$43,214
NMC QUANTICO VA	22132	Pharmacy Technician	661	28,140	$43,214
VHOSP JAX FL	32214	Pharmacy Technician	661	28,140	$41,164
NBHCL KY WEST FL	33040	Pharmacy Technician	661	28,140	$41,164
NBHCL KY WEST FL	33040	Pharmacy Technician	661	28,140	$41,164
NH CORPUS CHRIST	78419	Pharmacy Technician	661	28,140	$41,164
NMC SDGO CA	92140	Pharmacy Technician	661	28,140	$43,852
NMC SDGO CA	92140	Pharmacy Technician	661	28,140	$43,852
NMC SDGO CA	92140	Pharmacy Technician	661	28,140	$43,852
NMC SDGO CA	92140	Pharmacy Technician	661	28,140	$43,852
BRMCL S MIRAMA	92145	Pharmacy Technician	661	28,140	$43,852
BRMCL NS NORFOLK	23511	Pharmacy Technician	661	28,140	$41,164
BRMCL NS NORFOLK	23511	Pharmacy Technician	661	28,140	$41,164
BRCL S OCEA	23460	Pharmacy Technician	661	28,140	$41,164
BRMCL B LC	23521	Pharmacy Technician	661	28,140	$41,164
BRMCL WNY DC	20374	Pharmacy Technician	661	28,140	$43,214
BRMEDCL N BRSWK	4011	Pharmacy Technician	661	28,140	$41,164
BRMCL NSGA CHPKE	23322	Pharmacy Technician	661	28,140	$41,164
BRMDCL BARSTOW	92311	Pharmacy Technician	661	28,140	$41,164
BRMDCL CBC GLFPT	39501	Pharmacy Technician	661	28,140	$41,164
BRMCL NS SDGO	92133	Pharmacy Technician	661	28,140	$43,852
BRMCL D NECK VA	23461	Pharmacy Technician	661	28,140	$41,164
NHBRCL PASCAGOUL	39567	Pharmacy Technician	661	28,140	$41,164
BMC NSA MEMPHIS	38054	Pharmacy Technician	661	28,140	$41,164
BMC NSA MEMPHIS	38054	Pharmacy Technician	661	28,140	$41,164
BMC NSA MEMPHIS	38054	Pharmacy Technician	661	28,140	$41,164
BRMCL ATLANTA GA	30060	Pharmacy Technician	661	28,140	$42,107
BMC NSA MEMPHIS	38054	Pharmacy Technician	661	28,140	$41,164
NH BEAUFORT	29902	Pharmacy Technician	661	28,140	$41,164
NH BEAUFORT	29902	Pharmacy Technician	661	28,140	$41,164
CC GROTON CT	6349	Pharmacy Technician	661	28,140	$44,009
CC GROTON CT	6349	Pharmacy Technician	661	28,140	$44,009
CC GROTON CT	6349	Pharmacy Technician	661	28,140	$44,009
CC GROTON CT	6349	Pharmacy Technician	661	28,140	$44,009
VHOSP JAX FL	32214	Pharmacy Technician	661	28,140	$41,164
VHOSP JAX FL	32214	Pharmacy Technician	661	28,140	$41,164
NH PENSACOLA FL	32508	Pharmacy Technician	661	28,140	$41,164
BRMCL YUMA	85369	Pharmacy Technician	661	28,140	$41,164
NH CHERRY POINT	28533	Pharmacy Technician	661	28,140	$42,192

NH OAK HARBOR WA	98277	Pharmacy Technician	661	28,140	$43,252
NH OAK HARBOR WA	98277	Pharmacy Technician	661	28,140	$43,252
CC P HUENEME	93043	Pharmacy Technician	661	28,140	$44,471
CC NEW ORLNS	70152	Pharmacy Technician	661	28,140	$41,164
BRMCL S FALLON	89406	Pharmacy Technician	661	28,140	$41,164
BRCL S OCEA	23460	Pharmacy Technician	661	28,140	$41,164
NH CHARLESTON SC	29445	Pharmacy Technician	661	28,140	$41,164
NH CHARLESTON SC	29445	Pharmacy Technician	661	28,140	$41,164
NMEDCEN PTSMOUTH	23708	Pharmacy Technician	661	28,140	$41,164
CC NEWPT RI	2840	Pharmacy Technician	661	28,140	$44,095
CC NEWPT RI	2840	Pharmacy Technician	661	28,140	$44,095
NMC QUANTICO VA	22132	Pharmacy Technician	661	28,140	$43,214
NHBRCL PASCAGOUL	39567	Pharmacy Technician	661	28,140	$41,164
BRMEDCL NSTA	78363	Pharmacy Technician	661	28,140	$41,164
NH CP LEJEUNE NC	28542	Pharmacy Technician	661	28,140	$42,192
NH CP LEJEUNE NC	28542	Pharmacy Technician	661	28,140	$42,192
NH CP LEJEUNE NC	28542	Pharmacy Technician	661	28,140	$42,192
NH CP LEJEUNE NC	28542	Pharmacy Technician	661	28,140	$42,192
NH CP LEJEUNE NC	28542	Pharmacy Technician	661	28,140	$42,192
NH CP PENDLETON	92055	Pharmacy Technician	661	28,140	$43,852
NH CP PENDLETON	92055	Pharmacy Technician	661	28,140	$43,852
NH CP PENDLETON	92055	Pharmacy Technician	661	28,140	$43,852
NH BREMERTON WA	98310	Pharmacy Technician	661	28,140	$43,252
NH BREMERTON WA	98310	Pharmacy Technician	661	28,140	$43,252
NMC HAWAII HI	96860	Pharmacy Technician	661	28,140	$41,164
NMC HAWAII HI	96860	Pharmacy Technician	661	28,140	$41,164
NMC HAWAII HI	96860	Pharmacy Technician	661	28,140	$41,164
CC NEW ORLNS	70152	Pharmacy Technician	661	28,140	$41,164
NMC QUANTICO VA	22132	Pharmacy Technician	661	28,140	$43,214
BMC SJRB FW T	76127	Pharmacy Technician	661	28,140	$41,164
CC P HUENEME	93043	Pharmacy Technician	661	28,140	$44,471
NBHCL KY WEST FL	33040	Physician's Assistant	603	59,155	$75,465
NBHCL KY WEST FL	33040	Physician's Assistant	603	59,155	$75,465
NH PENSACOLA FL	32508	Police	083	28,090	$56,180
NH PENSACOLA FL	32508	Police	083	28,090	$56,180
NH PENSACOLA FL	32508	Police	083	28,090	$56,180
NMC PORTSMOUTH	23708	Police	083	28,090	$56,180
NMC PORTSMOUTH	23708	Police	083	28,090	$56,180
NMC PORTSMOUTH	23708	Police	083	28,090	$56,180
NH BREMERTON WA	98310	Police	083	28,090	56,180

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NMC HAWAII HI	ADV X-RAY	HM	E-4	$28,625.00
FY08	NBMCL WPS EARLE	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NBMCL WPS EARLE	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NDCLBR EC LKHU	HS BR CL DIR	220	O-5	$61,975.00
FY08	BMEDCL EC LKHU	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BMEDCL EC LKHU	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BRMCL S FALLON	PT TECH	HM	E-4	$28,625.00
FY08	NDCLBR S FALLO	DENTALMAN	DT	E-3	$28,625.00
FY08	BRMDCL CBC GLFPT	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	PT TECH	HM	E-4	$28,625.00
FY08	NDC CP LEJEUNE	DENT ASST	DT	E-3	$28,625.00
FY08	NMC HAWAII HI	DERM TECH	HM	E-6	$28,625.00
FY08	NMC HAWAII HI	OPTICIAN	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	OPTICIAN	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	OPTICIAN	HM	E-6	$28,625.00
FY08	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-5	$28,625.00
FY08	NDCLBR NU SCO NY	DENTAL TECH	DT	E-4	$28,625.00
FY08	NHBRCL PASCAGOUL	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH KEFLAVIK IC	OBSTR-GYN	210	O-5	$84,005.13
FY08	NDCLBR S MRID	DENTAL TECH	DT	E-5	$28,625.00
FY08	BRMDCL SMERIDI	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BRMDCL SMERIDI	LAB TECH BASIC	HM	E-4	$28,625.00
FY08	BRMDCL SMERIDI	SAR TECH	HM	E-5	$28,625.00
FY08	BRMDCL SMERIDI	SAR TECH	HM	E-5	$28,625.00
FY08	BRMDCL SMERIDI	PHARM TECH	HM	E-6	$28,625.00
FY08	BRMDCL SMERIDI	PHARMACY TECH	HM	E-4	$28,625.00
FY08	NBMCL WPS EARLE	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NDC BR PASCAGOUL	DENTALMAN (90S)	DT	E-3	$28,625.00
FY08	NDC CP LEJEUNE	DENTAL ASST	DT	E-3	$28,625.00
FY08	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH CP LEJEUNE NC	CYTO TECH	HM	E-5	$28,625.00
FY08	NH CHERRY POINT	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NH CHERRY POINT	PHARM TECH	HM	E-3	$28,625.00
FY08	NH CHERRY POINT	PHARMACY TECH	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	HOSPITALMAN/CLINICAL ASST	HM	E-3	$28,625.00
FY08	BRMDCL SMERIDI	PHYSICIAN ASST	230	O-3	$61,975.00
FY08	NH KEFLAVIK IC	XO SHR ACT	230	O-5	$84,005.13
FY08	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH KEFLAVIK IC	ADV X-RAY	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	ADV X-RAY	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	ADV X-RAY	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	PREV MED TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	PREV MED TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	PREV MED TECH	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	PREV MED TECH	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	COMPRE DENT/HS DPTHD	220	O-6	$96,691.39
FY08	NH KEFLAVIK IC	CDR/CO SHR ACT/ADDU TO 97057/00018	200	O-6	$96,691.39
FY08	NH KEFLAVIK IC	COMPRE DENT	220	O-4	$74,675.63
FY08	NH KEFLAVIK IC	MGT INFO SYS/HCA	230	O-3	$64,315.27
FY08	NH KEFLAVIK IC	PT ADMIN/HCA	230	O-4	$74,675.63
FY08	NH KEFLAVIK IC	INDUS HYG OFF	230	O-2	$50,856.53

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NH KEFLAVIK IC	FAM PHYS	210	O-3	$64,315.27
FY08	NH KEFLAVIK IC	FAM PHYS	210	O-3	$64,315.27
FY08	NH KEFLAVIK IC	FAM PHYS	210	O-4	$74,675.63
FY08	NH KEFLAVIK IC	FAM PHYS	210	O-4	$74,675.63
FY08	CC NEW ORLNS	PHYSICIAN ASST	230	O-4	$61,975.00
FY08	NH KEFLAVIK IC	ADMIN/HCA	230	O-4	$74,675.63
FY08	NH KEFLAVIK IC	PT TECH	HM	E-5	$33,922.14
FY08	NDCLBR CBC GFPT	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC HAWAII HI	HOSPTIALMAN	HM	E-3	$28,625.00
FY08	NMC HAWAII HI	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	PHARMACY TECH	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	PHARMACY TECH	HM	E-5	$28,625.00
FY08	NMC HAWAII HI	PHARMACY TECH	HM	E-5	$28,625.00
FY08	NH KEFLAVIK IC	ORAL MAX SGN	220	O-3	$64,315.27
FY08	NH KEFLAVIK IC	PT TECH	HM	E-5	$33,922.14
FY08	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH KEFLAVIK IC	DENT TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	DENTALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	DENTALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	DENTALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	DENTALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	DENTALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	DENT HYGIENE	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	DENT LAB ADV	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	COMPTROLLER	230	O-3	$64,315.27
FY08	NNMC BETHESDA	CV TECH	HM	E-5	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN/PUBLICATION CLERK	DT	E-3	$28,625.00
FY08	NNDC BETHESDA	DENT SURG TECH/FMF/ MOB TO 02320/67690	DT	E-5	$28,625.00
FY08	NNMC BETHESDA	ADV X-RAY	HM	E-5	$28,625.00
FY08	NNMC BETHESDA	DIETICIAN	230	O-3	$61,975.00
FY08	NEHCD BETHESDA	RAD SPEC	230	O-3	$61,975.00
FY08	NNMC BETHESDA	BASIC BMET	HM	E-5	$28,625.00
FY08	NNMC BETHESDA	RES THER TECH/MOB TO 19940/40220	HM	E-4	$28,625.00
FY08	BRMDCL CBC GLFPT	PHYSICIAN ASST	230	O-2	$61,975.00
FY08	NNMC BETHESDA	CV TECH	HM	E-5	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNMC BETHESDA	RAD HLTH TECH	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	RAD HLTH TECH	HM	E-5	$28,625.00
FY08	NEHCD BETHESDA	RAD HLTH TECH	HM	E-6	$28,625.00
FY08	NOSTRA DET BETH	OPTICIAN	HM	E-5	$28,625.00
FY08	NNDC BETHESDA	HOSPITAL CORPSMAN	HM	E-5	$28,625.00
FY08	NNMC BETHESDA	ENT TECH	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	HEMO/APHERESIS/BB AUG/MOB TO 00275/4308A	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	HISTO TECH	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	CV TECH	HM	E-4	$28,625.00
FY08	NNDC BETHESDA	DENTAL TECH	DT	E-5	$28,625.00
FY08	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NMC ANPOLIS MD	CORPSMAN	HM	E-4	$28,625.00
FY08	NMC ANPOLIS MD	CORPSMAN	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	OT TECH	HM	E-6	$28,625.00
FY08	NNMC BETHESDA	DENTAL TECH	DT	E-4	$28,625.00
FY08	NNDC BETHESDA	DENTAL TECH	DT	E-4	$28,625.00
FY08	NNDC BETHESDA	DENTAL TECH	DT	E-4	$28,625.00
FY08	NNDC BETHESDA	DENTAL TECH	DT	E-4	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNMC BETHESDA	DENTAL TECH	DT	E-5	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNDC BETHESDA	DENTAL TECH	DT	E-5	$28,625.00
FY08	NNDC BETHESDA	DENTAL TECH	DT	E-5	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNDC BETHESDA	DENTALMAN	DT	E-3	$28,625.00
FY08	NNMC BETHESDA	MED LAB TECH	HM	E-6	$28,625.00
FY08	NDCLBR WS COLTS	DENTAL TECH	DT	E-4	$28,625.00
FY08	NMC PATUXENT	PHARM TECH	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	HISTO TECH	HM	E-6	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC PATUXENT	PHARMACY TECH	HM	E-4	$28,625.00
FY08	NMC PATUXENT	PSYCH TECH	HM	E-3	$28,625.00
FY08	NDCLBR SBRSWK	DENTALMAN	DT	E-3	$28,625.00
FY08	NDCLBR SBRSWK	DENTALMAN	DT	E-3	$28,625.00
FY08	BRMEDCL N BRSWK	CORPSMAN	HM	E-4	$28,625.00
FY08	BRMEDCL N BRSWK	CORPSMAN	HM	E-4	$28,625.00
FY08	BRMEDCL N BRSWK	SAR TECH	HM	E-5	$28,625.00
FY08	BRMEDCL N BRSWK	MED LAB TECH	HM	E-5	$28,625.00
FY08	NMC PATUXENT	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	BMCL BURKE	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH KEFLAVIK IC	RADIOL DIAG/DPHD	210	O-4	$74,675.63
FY08	NNMC BETHESDA	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	NUC MED TECH	HM	E-5	$28,625.00
FY08	NNMC BETHESDA	UROLOGY TECH	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	UROLOGY TECH	HM	E-4	$28,625.00
FY08	NNMC BETHESDA	PHARMACY TECH/IV ADMIX	HM	E-3	$28,625.00
FY08	NNMC BETHESDA	PHARMACY TECH/IV ADMIX	HM	E-5	$28,625.00
FY08	NNMC BETHESDA	PHARMACY TECH/UNIT DOSE	HM	E-5	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NNMC BETHESDA	PSYCH TECH	HM	E-3	$28,625.00
FY08	NNMC BETHESDA	MED LAB TECH	HM	E-4	$28,625.00
FY08	BMCL BOYDS	HOSPITALMAN	HM	E-3	$28,625.00
FY08	DMCL COLUMBIA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRMCL NOS IND HD	PHYSICIAN ASST	230	O-3	$61,975.00
FY08	BRDCL S PAX	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC PATUXENT	PT TECH	HM	E-5	$28,625.00
FY08	NMC PATUXENT	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NMC PATUXENT	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NMC PATUXENT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NNMC BETHESDA	PHYS THERAPIST	230	O-1	$61,975.00
FY08	NBHCL NSO LAMAD	AMB CARE NRS	290	O-3	$64,315.27
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-6	$39,680.36

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-7	$45,699.60
FY08	NBHCL NSO LAMAD	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NBHCL NSO LAMAD	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NBHCL NSO LAMAD	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NBHCL NSO LAMAD	VY DRUG/ALCHOL COUNSELOR	SK	E-7	$45,699.60
FY08	NBHCL NSO LAMAD	VY DRUG/ALCOHOL INTERN	AD	E-6	$39,680.36
FY08	NH KEFLAVIK IC	PHYS THERAPIST	230	O-3	$64,315.27
FY08	NBHCL NSO LAMAD	MED LAB TECH	HM	E-5	$33,922.14
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NBHCL NSO LAMAD	AMB CARE NRS/ HS DPTHD	290	O-4	$74,675.63
FY08	NBHCL NSO LAMAD	PHARM TECH	HM	E-4	$28,377.91
FY08	NMC LONDON UK	DENT TECH	HM	E-4	$28,377.91
FY08	NMC LONDON UK	DENT TECH	HM	E-4	$28,377.91
FY08	NMC LONDON UK	DENT TECH	HM	E-4	$28,377.91
FY08	NMC LONDON UK	DENTALMAN	HM	E-3	$24,144.05
FY08	NMC LONDON UK	COMPRE DENT	220	O-5	$84,005.13
FY08	NMC LONDON UK	COMPRE DENT/HS DPTHD	220	O-6	$96,691.39
FY08	NBHCL NSO LAMAD	MED LAB TECH	HM	E-4	$28,377.91
FY08	NBHCL NSO LAMAD	OIC SHR ACT/ADDU TO 01050/32960	230	O-4	$74,675.63
FY08	NH KEFLAVIK IC	FAM PHYS	210	O-5	$84,005.13
FY08	NH KEFLAVIK IC	PSYCH TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	CLIN PSYCH	230	O-3	$64,315.27
FY08	NH KEFLAVIK IC	ENVR HLT OFF	230	O-3	$64,315.27
FY08	NH KEFLAVIK IC	ED TRA PLN GEN/HCA	230	O-2	$50,856.53
FY08	NBHCL NSO LAMAD	DENT TECH	HM	E-4	$28,377.91
FY08	NBHCL NSO LAMAD	DENT TECH	HM	E-4	$28,377.91
FY08	NBHCL NSO LAMAD	COMPRE DENT/HS DPTHD	220	O-4	$74,675.63
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-6	$39,680.36
FY08	NBHCL NSO LAMAD	PREV MED TECH	HM	E-5	$33,922.14
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NBHCL NSO LAMAD	FAM PHYS	210	O-4	$74,675.63
FY08	NBHCL NSO LAMAD	FAM PHYS/HS DPTHD	210	O-5	$84,005.13
FY08	NBHCL NSO LAMAD	CORPSMAN	HM	E-8	$51,152.42
FY08	NBHCL NSO LAMAD	DENT ADMIN	HM	E-5	$33,922.14
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NBHCL NSO LAMAD	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	ADMIN/HCA/DFA	230	O-4	$74,675.63
FY08	NBHCL NSO LAMAD	ADV X-RAY	HM	E-5	$33,922.14
FY08	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC LONDON UK	ADV X-RAY	HM	E-6	$39,680.36
FY08	NMC LONDON UK	PHARMACIST	230	O-3	$64,315.27
FY08	NDC EU PLES IT	HCA/HD FISCAL	230	O-3	$61,975.00
FY08	NDC PEARL HARBOR	DENT TECH	DT	E-6	$28,625.00
FY08	NDC PEARL HARBOR	DENTAL TECH	DT	E-5	$28,625.00
FY08	NDC PEARL HARBOR	DENTAL TECH/PREV DENT	DT	E-4	$28,625.00
FY08	NDC PEARL HARBOR	DENTAL TECH/X-RAY	DT	E-4	$28,625.00
FY08	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC LONDON UK	EMERG-TRAUMA NRS	290	O-3	$64,315.27
FY08	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC LONDON UK	MED LAB TECH	HM	E-5	$33,922.14
FY08	NDC PEARL HARBOR	DENT GP	220	O-5	$61,975.00
FY08	BRDENCL ROTA SP	DENT GP	220	O-4	$61,975.00
FY08	NH SIGONELLA	HCA	230	O-2	$50,856.53
FY08	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,144.05

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	PHARMACIST	230	O-3	$64,315.27
FY08	NMC LONDON UK	HCA	230	O-3	$64,315.27
FY08	NMC LONDON UK	FAM PHYS/DPTHD	210	O-5	$84,005.13
FY08	NMC LONDON UK	FLIGHT SGN	210	O-5	$84,005.13
FY08	NMC LONDON UK	ADV MEDICAL ADMIN TECH	HM	E-5	$33,922.14
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	PHARM TECH	HM	E-6	$39,680.36
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	PREV MED TECH	HM	E-6	$39,680.36
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NMC LONDON UK	CORPSMAN/SEL	HM	E-8	$51,152.42
FY08	NMC LONDON UK	DENT ADMIN	HM	E-6	$39,680.36
FY08	NMC LONDON UK	DENT TECH	HM	E-5	$33,922.14
FY08	NMC LONDON UK	HOSPITAL CORPSMAN/INDUS HYG	HM	E-6	$39,680.36
FY08	NMC LONDON UK	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NMC LONDON UK	AERO MED TECH	HM	E-5	$33,922.14
FY08	NMC LONDON UK	CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	PSYCH TECH	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	ADV BMET	HM	E-7	$45,699.60
FY08	NH KEFLAVIK IC	CORPSMAN	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	CORPSMAN/SEL	HM	E-9	$60,214.56
FY08	NH KEFLAVIK IC	DENT ADMIN	HM	E-7	$45,699.60
FY08	NH KEFLAVIK IC	DENT TECH	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	HOSPITAL CORPSMAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	STAF NRS/MED-SURG/HS DPTHD	290	O-5	$84,005.13
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	CC NRS/HS DIV OFF	290	O-2	$50,856.53
FY08	NH KEFLAVIK IC	NRS ANESTH	290	O-4	$74,675.63
FY08	NH KEFLAVIK IC	EMERG-TRAUMA NRS	290	O-2	$50,856.53
FY08	NH KEFLAVIK IC	DIR HS/PGM	290	O-6	$96,691.39
FY08	NH KEFLAVIK IC	HS DPTHD	290	O-4	$74,675.63
FY08	NH KEFLAVIK IC	STAF NRS	290	O-1	$41,934.93
FY08	NH KEFLAVIK IC	STAF NRS	290	O-1	$41,934.93
FY08	NH KEFLAVIK IC	STAF NRS	290	O-1	$41,934.93
FY08	NH KEFLAVIK IC	STAF NRS/MED-SURG/HS DPTHD	290	O-3	$64,315.27
FY08	NH KEFLAVIK IC	SURFACE IDC	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	STAF NRS/PEDS	290	O-1	$41,934.93
FY08	NH KEFLAVIK IC	PERIOP NRS	290	O-3	$64,315.27
FY08	NH KEFLAVIK IC	PERIOP NRS/HS DPTHD	290	O-3	$64,315.27
FY08	NH KEFLAVIK IC	OPTOMETRIST	230	O-3	$64,315.27
FY08	NH KEFLAVIK IC	PHARM TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	PHARM TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	PHARM TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	PHARM TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	STAF NRS/M-CHILD	290	O-2	$50,856.53
FY08	NH KEFLAVIK IC	OPTICIAN	HM	E-3	$24,144.05
FY08	CC NEW ORLNS	PHARM TECH	HM	E-5	$28,625.00
FY08	NH KEFLAVIK IC	AERO MED TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	AERO MED TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	MED LAB TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	MED LAB TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	MED LAB TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	MED LAB TECH	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	MED LAB TECH	HM	E-6	$39,680.36
FY08	NH KEFLAVIK IC	STAF NRS	290	O-1	$41,934.93
FY08	NH KEFLAVIK IC	MED LAB TECH/ SUPV	HM	E-7	$45,699.60
FY08	NH KEFLAVIK IC	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH KEFLAVIK IC	OPTICIAN	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-4	$28,377.91
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	SURG TECH	HM	E-5	$33,922.14
FY08	NH KEFLAVIK IC	MED LAB TECH	HM	E-6	$39,680.36
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC SDGO CA	UROLOGY TECH	HM	E-5	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	CAST RM TECH	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	LREHABCEN MIRA	CLIN PSYCH	230	O-4	$61,975.00
FY08	VMED SUPPMD	CORPSMAN/MED CORPS ASST	HM	E-5	$34,320.44
FY08	NMC SDGO CA	STAF NRS	290	O-2	$61,975.00
FY08	NMC SDGO CA	STAF NRS	290	O-2	$61,975.00
FY08	NMC SDGO CA	PHARM TECH	HM	E-5	$28,625.00
FY08	BRMCL NS SDGO	PHARM TECH	HM	E-5	$28,625.00
FY08	NMC SDGO CA	PHARM TECH	HM	E-6	$28,625.00
FY08	NMC SDGO CA	PHARMACY TECH	HM	E-3	$28,625.00
FY08	NMC SDGO CA	PHARMACY TECH	HM	E-3	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRMCL S MIRAMA	PHARMACY TECH	HM	E-4	$28,625.00
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC SDGO CA	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMC SDGO CA	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMC SDGO CA	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMC SDGO CA	PSYCH TECH	HM	E-3	$28,625.00
FY08	NHBRCL NWS SEAL	PREV MED TECH	HM	E-5	$28,625.00
FY08	NHBRCL NWS SEAL	SURFACE IDC	HM	E-6	$28,625.00
FY08	NHBRCL NWS SEAL	SURFACE IDC/SUPV	HM	E-5	$28,625.00
FY08	CC GROTON CT	PHARM TECH	HM	E-3	$28,625.00
FY08	NMC SDGO CA	PHARMACY TECH	HM	E-3	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/DENTAL CORPS ASST	HM	E-5	$34,320.44
FY08	CC GROTON CT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NDC SE JAX FL	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC SE JAX FL	DENTALMAN/ FMF/ MOB TO 02480/67691	DT	E-3	$28,625.00
FY08	NDC SE JAX FL	DENT LAB TECH BASIC	DT	E-5	$28,625.00
FY08	VHOSP JAX FL	PEDODONTIST	220	O-6	$61,975.00
FY08	VMED SUPPMD	CORPSMAN	HM	E-7	$46,236.19
FY08	VMED SUPPMD	CORPSMAN/ADMIN SUPV	HM	E-7	$46,236.19
FY08	VMED SUPPMD	CORPSMAN/ARCHIVIST	HM	E-5	$34,320.44
FY08	NDC SE JAX FL	DENTAL TECH	DT	E-5	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/DENTAL CORPS ASST	HM	E-5	$34,320.44
FY08	ARMFORINST PATHO	HISTO TECH	HM	E-5	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/DENTAL CORPS ASST	HM	E-5	$34,320.44
FY08	VMED SUPPMD	CORPSMAN/FILE CLERK	HM	E-4	$28,711.12
FY08	VMED SUPPMD	CORPSMAN/FILE CLERK	HM	E-4	$28,711.12
FY08	VMED SUPPMD	CORPSMAN/FILE CLERK	HM	E-4	$28,711.12
FY08	VMED SUPPMD	CORPSMAN/FILE CLERK	HM	E-4	$28,711.12
FY08	VMED SUPPMD	CORPSMAN/FILE CLERK	HM	E-5	$34,320.44
FY08	VMED SUPPMD	CORPSMAN/MED CORPS ASST	HM	E-5	$34,320.44

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NMC ANPOLIS MD	BASIC X-RAY	HM	E-4	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/ARCHIVIST	HM	E-6	$40,146.27
FY08	BRDCL WNY DC	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC SDGO CA	UROLOGY TECH	HM	E-5	$28,625.00
FY08	CC GROTON CT	PHARM TECH	HM	E-4	$28,625.00
FY08	CC GROTON CT	PHARM TECH	HM	E-5	$28,625.00
FY08	CC GROTON CT	PHYSICIAN ASST	230	O-3	$61,975.00
FY08	CC GROTON CT	CLIN PSYCH	230	O-3	$61,975.00
FY08	NDCLBR NSYDPTSNH	DENT TECH	DT	E-4	$28,625.00
FY08	BRDCL WNY DC	DENTAL TECH	DT	E-4	$28,625.00
FY08	BRDCL WNY DC	DENTAL TECH	DT	E-5	$28,625.00
FY08	NDC SE JAX FL	DENTAL TECH	DT	E-5	$28,625.00
FY08	VBRDENCL PENT	DENTALMAN	DT	E-3	$28,625.00
FY08	CC GROTON CT	ENT TECH	HM	E-4	$28,625.00
FY08	BRMCL WNY DC	ADV X-RAY	HM	E-6	$28,625.00
FY08	BRMCL NRL WASH	BASIC X-RAY	HM	E-4	$28,625.00
FY08	BRMCL F DC	BASIC X-RAY	HM	E-5	$28,625.00
FY08	BRMCL WNY DC	CORPSMAN	HM	E-5	$28,625.00
FY08	BRMCL WNY DC	CORPSMAN	HM	E-5	$28,625.00
FY08	BRMCL WNY DC	CORPSMAN	HM	E-5	$28,625.00
FY08	BRMCL F DC	HOSPITAL CORPSMAN/SUPPLY	HM	E-5	$28,625.00
FY08	ARMFORINST PATHO	HISTO TECH	HM	E-5	$28,625.00
FY08	BRDCL WNY DC	DENTAL TECH	DT	E-5	$28,625.00
FY08	BDCL WPNC CHLK	DENTAL TECH	DT	E-4	$28,625.00
FY08	NDCLBR S N ISL	DENTAL ASST	DT	E-4	$28,625.00
FY08	NDCLBR S N ISL	DENTAL TECH	DT	E-4	$28,625.00
FY08	NDCLBR S N ISL	DENTAL GP SS	220	O-3	$61,975.00
FY08	NDCLBR S N ISL	ORAL MAX SGN	220	O-6	$61,975.00
FY08	BDCL S PMUGU	DENTALMAN	DT	E-3	$28,625.00
FY08	BDCL CBC PORHUE	DENTALMAN	DT	E-3	$28,625.00
FY08	CC P HUENEME	ADV X-RAY	HM	E-5	$28,625.00
FY08	NMC SDGO CA	STAF NRS	290	O-2	$61,975.00
FY08	CC P HUENEME	PHARM TECH	HM	E-5	$28,625.00
FY08	NH LEMOORE	PHARM TECH	HM	E-5	$28,625.00
FY08	NMC SDGO CA	OT TECH	HM	E-5	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	CC P HUENEME	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NH CP PENDLETON	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	BRMCL YUMA	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NHOSP 29 PALMS	PATHLGIST	210	O-4	$61,975.00
FY08	NDC CP PENDLETON	DENTAL TECH	DT	E-5	$28,625.00
FY08	NDC CP PENDLETON	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC CP PENDLETON	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC CP PENDLETON	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC CP PENDLETON	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC CP PENDLETON	ORAL DIAGNOS	220	O-5	$61,975.00
FY08	NDCLBR S N ISL	DENTAL ASST	DT	E-3	$28,625.00
FY08	NH CP PENDLETON	BASIC BMET	HM	E-4	$28,625.00
FY08	NH LEMOORE	PHYSICIAN ASST	230	O-2	$61,975.00
FY08	NH CP PENDLETON	PHARM TECH	HM	E-4	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NH CP PENDLETON	PHARM TECH	HM	E-5	$28,625.00
FY08	NH CP PENDLETON	PHARMACY TECH	HM	E-4	$28,625.00
FY08	NDCLBR S LEMOO	DENTAL ASST SS	DT	E-3	$28,625.00
FY08	NDCLBR S LEMOO	COMPRE DENT	220	O-4	$61,975.00
FY08	NH LEMOORE	CORPSMAN	HM	E-4	$28,625.00
FY08	NH LEMOORE	MED LAB TECH	HM	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NH CP PENDLETON	RAD HEALTH	230	O-3	$61,975.00
FY08	NMC SDGO CA	HISTO TECH	HM	E-6	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NMC SDGO CA	PEDIATRICIAN/ NEPHROLOGY	210	O-5	$61,975.00
FY08	NMC SDGO CA	PEDIATRICIAN/ NEUROLOGY	210	O-3	$61,975.00
FY08	NMC SDGO CA	BIOMED PHOTO	HM	E-6	$28,625.00
FY08	NMC SDGO CA	CV TECH	HM	E-5	$28,625.00
FY08	NMC SDGO CA	CV TECH	HM	E-5	$28,625.00
FY08	NMC SDGO CA	DERM TECH	HM	E-3	$28,625.00
FY08	NMC SDGO CA	DERM TECH	HM	E-6	$28,625.00
FY08	NDC SW SAN DIEGO	ADMIN DENT SVC	230	O-2	$61,975.00
FY08	NMC SDGO CA	ENT TECH	HM	E-4	$28,625.00
FY08	NMC SDGO CA	ADV X-RAY	HM	E-4	$28,625.00
FY08	NMC SDGO CA	MED LAB TECH	HM	E-5	$28,625.00
FY08	NMC SDGO CA	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NMC SDGO CA	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NMC SDGO CA	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NMC SDGO CA	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	BRMCL NS SDGO	MED LAB TECH ADV	HM	E-6	$28,625.00
FY08	NMC SDGO CA	NUC MED TECH	HM	E-4	$28,625.00
FY08	NMC SDGO CA	UROLOGY TECH	HM	E-4	$28,625.00
FY08	NMC SDGO CA	CYTO TECH	HM	E-5	$28,625.00
FY08	NMC SDGO CA	DENTALMAN	DT	E-3	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/MED CORPS COORD	HM	E-6	$40,146.27
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-5	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST (6N)	DT	E-4	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST (92D10)	DT	E-3	$28,625.00
FY08	NMC SDGO CA	BASIC BMET	HM	E-4	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST (92D8)	DT	E-4	$28,625.00
FY08	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$28,625.00
FY08	NMC SDGO CA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC SW SAN DIEGO	STOCK CLRK	DT	E-5	$28,625.00
FY08	NDC SW SAN DIEGO	DENT GP	220	O-6	$61,975.00
FY08	NDC SW SAN DIEGO	PUBHLTHDENTIST	220	O-4	$61,975.00
FY08	NDC SW SAN DIEGO	PERIODONTIST	220	O-4	$61,975.00
FY08	NDC SW SAN DIEGO	PROSTHODONTIST	220	O-5	$61,975.00
FY08	NDC SW SAN DIEGO	DENT ASST (92D10)	DT	E-4	$28,625.00
FY08	NHOSP GLAKES	HOSPITAL CORPSMAN/ARD	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23520/67649	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23615/67649	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23620/67649	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23710/67649	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23725/67649	HM	E-4	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23815/67649	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23825/67649	HM	E-4	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 33725/67653	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	ENVR HLT OFF	230	O-3	$61,975.00
FY08	NHOSP GLAKES	HOSPITAL CORPSMAN/ARD	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 21540/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 21545/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 21855/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22530/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 33720/67653	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	DENT LAB BASIC	DT	E-4	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/MED CORPS ASST	HM	E-5	$34,320.44
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NHOSP GLAKES	DERM TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	DENT LAB ADV	DT	E-5	$28,625.00
FY08	NHOSP GLAKES	PATHLGIST	210	O-6	$61,975.00
FY08	NDC GREAT LAKES	DENTAL TECHNICIAN	DT	E-5	$28,625.00
FY08	NDC GREAT LAKES	DENT GP	220	O-3	$61,975.00
FY08	NDC GREAT LAKES	DENT GP	220	O-4	$61,975.00
FY08	NDC GREAT LAKES	ENDODONTIST	220	O-4	$61,975.00
FY08	NDC GREAT LAKES	ORAL MAX SGN	220	O-5	$61,975.00
FY08	NHOSP GLAKES	BASIC X-RAY	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	BASIC X-RAY	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22630/67648	HM	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NHOSP GLAKES	PSYCH TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22540/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	MED LAB TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	MED LAB TECH	HM	E-5	$28,625.00
FY08	NHOSP GLAKES	MED LAB TECH	HM	E-5	$28,625.00
FY08	NHOSP GLAKES	NUC MED TECH	HM	E-5	$28,625.00
FY08	NHOSP GLAKES	OCULAR TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	UROLOGY TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	PHARM TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	MED LAB TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	PSYCH TECH	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33855/67653	HM	E-3	$28,625.00
FY08	NDCLBR NOLA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDCLBR NOLA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDCLBR NOLA	DENTALMAN	DT	E-3	$28,625.00
FY08	CC NEW ORLNS	OPTICIAN	HM	E-5	$28,625.00
FY08	BMC SJRB FW T	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEW ORLNS	HOSPITALMAN/ FMF/ MOB TO 13750/67645	HM	E-3	$28,625.00
FY08	CC NEW ORLNS	HOSPITALMAN/ FMF/ MOB TO 13835/67645	HM	E-3	$28,625.00
FY08	CC NEW ORLNS	AMB CARE NRS	290	O-3	$61,975.00
FY08	NHOSP GLAKES	PSYCH TECH	HM	E-3	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21730/67647	HM	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22635/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22640/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22655/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22735/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22745/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22750/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22755/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	MED LAB TECH	HM	E-4	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21535/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22550/67648	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21735/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21745/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21750/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21755/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 21845/67647	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 23630/67649	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33530/67653	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33535/67653	HM	E-3	$28,625.00
FY08	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 22845/67648	HM	E-3	$28,625.00
FY08	NBHCL MAYPORT FL	MED LAB TECH	HM	E-4	$28,625.00
FY08	VHOSP JAX FL	PHARMACY TECH	HM	E-4	$28,625.00
FY08	VALREHCEN JAX	CLIN PSYCH	230	O-4	$61,975.00
FY08	NBHCL KY WEST FL	ENVR HLT OFF	230	O-3	$61,975.00
FY08	NBHCL KY WEST FL	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NBHCL KY WEST FL	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NBHCL KY WEST FL	SAR TECH	HM	E-5	$28,625.00
FY08	NBHCL MAYPORT FL	HCA	230	O-3	$61,975.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NOSTRA DET MAYPT	OPTICIAN	HM	E-5	$28,625.00
FY08	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$28,625.00
FY08	NBHCL MAYPORT FL	PHARM TECH	HM	E-4	$28,625.00
FY08	BRMDCL S WHIFD	PT TECH	HM	E-4	$28,625.00
FY08	NDCLBR S WHITI	DENTALMAN	DT	E-3	$28,625.00
FY08	BRMDCL S WHIFD	CORPSMAN	HM	E-4	$28,625.00
FY08	BRMDCL S WHIFD	PHARMACY TECH	HM	E-6	$28,625.00
FY08	NH BR CL PANCITY	HOSPITAL CORPSMAN/ENL SUPVR	HM	E-8	$28,625.00
FY08	NH PENSACOLA FL	PT TECH	HM	E-3	$28,625.00
FY08	NDC G COAST PNSC	DENTAL TECH	DT	E-4	$28,625.00
FY08	NBHCL MAYPORT FL	RAD HLTH TECH	HM	E-4	$28,625.00
FY08	VHOSP JAX FL	RAD HLTH TECH	HM	E-4	$28,625.00
FY08	VMED SUPPMD	CORPSMAN/MED SERVICE CORPS ASST	HM	E-5	$34,320.44
FY08	VMED SUPPMD	CORPSMAN/MED SVC CORPS COORD	HM	E-6	$40,146.27
FY08	VMED SUPPMD	CORPSMAN/NURSE CORPS ASST	HM	E-5	$34,320.44
FY08	VMED SUPPMD	CORPSMAN/NURSE CORPS ASST	HM	E-5	$34,320.44
FY08	VMED SUPPMD	CORPSMAN/NURSE CORPS ASST	HM	E-5	$34,320.44
FY08	VMED SUPPMD	CORPSMAN/NURSE CORPS COORD	HM	E-6	$40,146.27
FY08	VMED SUPPMD	CORPSMAN/RESERVE LIAISON	HM	E-9	$60,921.58
FY08	VMED SUPPMD	YEOMAN/ADMIN ASST	HM	E-5	$34,320.44
FY08	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$28,625.00
FY08	VHOSP JAX FL	BASIC BMET	HM	E-5	$28,625.00
FY08	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$28,625.00
FY08	VHOSP JAX FL	HOSPITALMAN	HM	E-3	$28,625.00
FY08	VHOSP JAX FL	HOSPITALMAN	HM	E-3	$28,625.00
FY08	VHOSP JAX FL	HOSPITALMAN	HM	E-3	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	VHOSP JAX FL	AERO PHYSIO TECH	HM	E-5	$28,625.00
FY08	VHOSP JAX FL	CYTO TECH	HM	E-4	$28,625.00
FY08	VHOSP JAX FL	ENT TECH	HM	E-3	$28,625.00
FY08	VHOSP JAX FL	LAB TECH	HM	E-4	$28,625.00
FY08	NDC G COAST PNSC	DENTALMAN	DT	E-3	$28,625.00
FY08	HCSO JAX FL/RPN	MED DPT STF/RESERVE CREDENTIALS COORD	200	O-4	$75,552.44
FY08	NBHCL KINGS BAY	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NDC G COAST PNSC	DENTAL TECH	DT	E-4	$28,625.00
FY08	NBHCL ALBANY GA	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NBHCL ALBANY GA	AMB CARE NRS	290		$61,975.00
FY08	NHBRCL NSCS ATHE	CORPSMAN	HM	E-4	$28,625.00
FY08	NDCBR S ATLANT	DENTALMAN	DT	E-3	$28,625.00
FY08	BRMCL ATLANTA GA	AMB CARE NRS/HS DIV OFF	290		$61,975.00
FY08	BRDENCLINIC SBGA	DENTAL TECH/ASST	DT	E-4	$28,625.00
FY08	BRDENCLINIC SBGA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDCBR ALBANY GA	DENTALMAN	DT	E-3	$28,625.00
FY08	NBHCL KINGS BAY	RAD HLTH TECH	HM	E-7	$28,625.00
FY08	NDC G COAST PNSC	ADMIN DENT SVC	230	O-2	$61,975.00
FY08	NHOSP GLAKES	PT TECH	HM	E-5	$28,625.00
FY08	NDC GREAT LAKES	DENT ASST	DT	E-4	$28,625.00
FY08	NDC GREAT LAKES	DENTAL ASST	DT	E-4	$28,625.00
FY08	NHOSP GLAKES	DENTAL TECH	DT	E-4	$28,625.00
FY08	NDC GREAT LAKES	DENTAL TECH	DT	E-5	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC GREAT LAKES	DENTALMAN	DT	E-3	$28,625.00
FY08	BRDENCLINIC SBGA	DENTALMAN / ASST	DT	E-3	$28,625.00
FY08	NH PENSACOLA FL	PHARMACY TECH	HM	E-3	$28,625.00
FY08	NH KEFLAVIK IC	ADV BMET	HM	E-6	$39,680.36
FY08	NDC G COAST PNSC	ENDODONTIST	220	O-6	$61,975.00
FY08	NDC G COAST PNSC	ORAL MAX SGN	220	O-5	$61,975.00
FY08	NH PENSACOLA FL	PATHLGIST	210	O-4	$61,975.00
FY08	NH PENSACOLA FL	HOSPITALMAN/ FMF/ MOB TO 02260	HM	E-3	$28,625.00
FY08	NH PENSACOLA FL	CYTO TECH	HM	E-6	$28,625.00
FY08	NOMI D MI	ENT TECH	HM	E-4	$28,625.00
FY08	NOMI D MI	OCULAR TECH	HM	E-4	$28,625.00
FY08	NBHCL ALBANY GA	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NH PENSACOLA FL	PHARM TECH	HM	E-4	$28,625.00
FY08	NDC G COAST PNSC	DENTALMAN	DT	E-3	$28,625.00
FY08	NH PENSACOLA FL	PHARMACY TECH	HM	E-4	$28,625.00
FY08	S NH TG P	HS RES	210	O-3	$64,315.27
FY08	S NH TG P	HS RES	210	O-3	$64,315.27
FY08	S NH TG P	HS RES	210	O-3	$64,315.27
FY08	S NH TG P	HS RES	210	O-3	$64,315.27
FY08	S NH TG P	HS RES	210	O-4	$74,675.63
FY08	S NH TG P	HS RES	210	O-4	$74,675.63
FY08	S NH TG P	HS RES	210	O-4	$74,675.63
FY08	NH PCOLA FH PC D	OCULAR TECH/MOB TO 29320/40230	HM	E-6	$28,625.00
FY08	PHBASE BDENC NOR	DENT GP	220	O-3	$61,975.00
FY08	NDC BR INGLESIDE	DENTALMAN (90S)	DT	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	DENTALMAN	DT	E-3	$28,625.00
FY08	NDCLBR S OCEAN	PROSTHODONTIST	220	O-6	$61,975.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRMDCL S KINGS	CORPSMAN	HM	E-4	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	PHBASE BDENC NOR	DENT GP	220	O-5	$61,975.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NDCLBR S DALLA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDCLBR S OCEAN	DENT GP	220	O-3	$61,975.00
FY08	PHBASE BDENC NOR	DENTAL TECH	DT	E-5	$28,625.00
FY08	NDCLBR S OCEAN	DENT TECH	DT	E-4	$28,625.00
FY08	NDCLBR S OCEAN	DENT TECH	DT	E-4	$28,625.00
FY08	NMC QUANTICO VA	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	BRMCL NSGD SUG G	PHYSICIAN ASST	230		$61,975.00
FY08	BRMDCL S KINGS	CORPSMAN	HM	E-4	$28,625.00
FY08	NH CORPUS CHRIST	HOSPITALMAN/ FMF/ MOB TO 11615/67643	HM	E-3	$28,625.00
FY08	BRCL S OCEA	CORPSMAN	HM	E-5	$28,625.00
FY08	BRCL S OCEA	CORPSMAN	HM	E-5	$28,625.00
FY08	BRDNCL S CORPC	DENT EQUIP REPAIR TECH	DT	E-5	$28,625.00
FY08	NH CORPUS CHRIST	ADV X-RAY	HM	E-5	$28,625.00
FY08	NH CORPUS CHRIST	ADV X-RAY	HM	E-5	$28,625.00
FY08	NH CORPUS CHRIST	ADV BMET	HM	E-6	$28,625.00
FY08	BRCL S OCEA	CORPSMAN	HM	E-4	$28,625.00
FY08	NH CORPUS CHRIST	CV TECH	HM	E-4	$28,625.00
FY08	BRCL S OCEA	CORPSMAN	HM	E-4	$28,625.00
FY08	NH CORPUS CHRIST	SAR TECH	HM	E-4	$28,625.00
FY08	NH CORPUS CHRIST	ADV LAB TECH	HM	E-5	$28,625.00
FY08	NH CORPUS CHRIST	MED LAB TECH	HM	E-5	$28,625.00
FY08	NH CORPUS CHRIST	PHARM TECH	HM	E-4	$28,625.00
FY08	NH CORPUS CHRIST	PHARM TECH	HM	E-4	$28,625.00
FY08	NMC QUANTICO VA	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NH CORPUS CHRIST	RES THER TECH/MOB TO 20210/46245	HM	E-6	$28,625.00
FY08	BRMEDCL BALLSTON	RAD HLTH TECH	HM	E-4	$28,625.00
FY08	AHS FT S HOUSTON	CYTO TECH/INST	HM	E-6	$28,625.00
FY08	BRMCL ARL ANNEX	CORPSMAN	HM	E-4	$28,625.00
FY08	BRDCL MCCDC QUAN	DENT GP	220	O-3	$61,975.00
FY08	BRDCL MCCDC QUAN	DENTALMAN	DT	E-3	$28,625.00
FY08	BRDCL MCCDC QUAN	DENTALMAN	DT	E-3	$28,625.00
FY08	BRMCL ARL ANNEX	CORPSMAN	HM	E-5	$28,625.00
FY08	BRMCL ARL ANNEX	BASIC X-RAY	HM	E-5	$28,625.00
FY08	BRMCL ARL ANNEX	SURFACE IDC	HM	E-5	$28,625.00
FY08	NMC QUANTICO VA	BASIC X-RAY	HM	E-4	$28,625.00
FY08	BRDCL MCCDC QUAN	DENTAL TECH	DT	E-4	$28,625.00
FY08	NMC QUANTICO VA	PT TECH/FLD MED TECH	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	BRMCL ARL ANNEX	CORPSMAN	HM	E-6	$28,625.00
FY08	NMC QUANTICO VA	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BMC NSA MEMPHIS	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRMCL NSWC DLGN	PHYSICIAN ASST	230	O-3	$61,975.00
FY08	NMC QUANTICO VA	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	BRDCL US AN	DENTAL TECH	DT	E-4	$28,625.00
FY08	BRDCL US AN	DENTAL TECH	DT	E-5	$28,625.00
FY08	NMC QUANTICO VA	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BRMCL ARL ANNEX	AERO MED TECH	HM	E-6	$28,625.00
FY08	BRDCL US AN	DENTALMAN	DT	E-3	$28,625.00
FY08	BRDCL NSWC DLGN	DENTALMAN	DT	E-3	$28,625.00
FY08	BRDCL US AN	DENT GP	220	O-3	$61,975.00
FY08	NMC QUANTICO VA	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BRDCL US AN	ORTHODONTIST	220	O-5	$61,975.00
FY08	NMC QUANTICO VA	HOSPITAL CORPSMAN	HM	E-4	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NMC QUANTICO VA	OPTICIAN	HM	E-5	$28,625.00
FY08	NMC QUANTICO VA	MED TECH	230	O-3	$61,975.00
FY08	BRDCL US AN	DENTALMAN	DT	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	NH CHARLESTON SC	HOSPITALMAN	HM	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	NH BEAUFORT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH BEAUFORT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH BEAUFORT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH BEAUFORT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	PSYCH TECH	HM	E-4	$28,625.00
FY08	NH BEAUFORT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	PHARM TECH	HM	E-4	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	NH BEAUFORT	SAR TECH	HM	E-4	$28,625.00
FY08	NH BEAUFORT	PHARMACY TECH	HM	E-5	$28,625.00
FY08	NH BEAUFORT	PHARMACY TECH	HM	E-6	$28,625.00
FY08	NH CHARLESTON SC	ORTHO CAST RM TECH	HM	E-3	$28,625.00
FY08	BMC NSA MEMPHIS	MED LAB TECH ADV	HM	E-6	$28,625.00
FY08	NH BEAUFORT	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NPT MC U DT	HOSPITALMAN/ FMF/ MOB TO 24130/67685	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	NH BEAUFORT	BASIC BMET	HM	E-6	$28,625.00
FY08	CC NPT MC U DT	HOSPITALMAN/ FMF/ MOB TO 24120/67685	HM	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	CC NPT MC U DT	HOSPITALMAN/ FMF/ MOB TO 24150/67685	HM	E-3	$28,625.00
FY08	CC NPT MC U DT	HOSPITALMAN/ FMF/ MOB TO 25160/67685	HM	E-3	$28,625.00
FY08	CC NEWPT RI	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	CC NEWPT RI	OCULAR TECH	HM	E-4	$28,625.00
FY08	CC NEWPT RI	STAF NRS	290	O-3	$61,975.00
FY08	CC NEWPT RI	PHARM TECH	HM	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	NDC P ISL SC	ORAL MAX SGN	220	O-4	$61,975.00
FY08	NH CHARLESTON SC	BASIC X-RAY	HM	E-4	$28,625.00
FY08	NDC P ISL SC	DENTALMAN	DT	E-3	$28,625.00
FY08	NMC WALLOPS ISL	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NDC P ISL SC	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC P ISL SC	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC P ISL SC	DENT GP	220	O-3	$61,975.00
FY08	NDC P ISL SC	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC P ISL SC	DENT GP	220	O-4	$61,975.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-3	$28,625.00
FY08	MCRD PARRIS ISLD	OPTICIAN	HM	E-4	$28,625.00
FY08	BRDNCL S MFS	DENTALMAN	DT	E-3	$28,625.00
FY08	BRDNCL S MFS	DENT EQUIP REPAIR TECH	DT	E-5	$28,625.00
FY08	BRDNCL S MFS	PERIODONTIST	220	O-4	$61,975.00
FY08	BMC NSA MEMPHIS	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	NDC P ISL SC	DENT GP	220	O-4	$61,975.00
FY08	NH CHARLESTON SC	PHARMACY TECHNICIAN	HM	E-5	$28,625.00
FY08	NH CHARLESTON SC	HOSPITALMAN	HM	E-3	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NH CHARLESTON SC	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH CHARLESTON SC	HOSPITALMAN/ FMF/ MOB TO 34140/67806	HM	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	NH CHARLESTON SC	OPTOMETRIST	230		$61,975.00
FY08	NH CHARLESTON SC	PHARMACIST	230	O-2	$61,975.00
FY08	WPSTA BDENCL NOR	DENTALMAN	DT	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	BRCL S OCEA	SAR TECH	HM	E-4	$28,625.00
FY08	BDC WPNSTA CHASN	DENTALMAN	DT	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-3	$28,625.00
FY08	BDC WPNSTA CHASN	DENTALMAN	DT	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-3	$28,625.00
FY08	NDC P ISL SC	DENTAL TECH	DT	E-4	$28,625.00
FY08	NDC P ISL SC	DENTAL TECH	DT	E-5	$28,625.00
FY08	NH CHARLESTON SC	PHARMACY TECHNICIAN	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	END TECH	HM	E-6	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	INDUS HYG OFF	230	O-3	$61,975.00
FY08	VENHLTHCEN PTS	INDUS HYG OFF	230	O-3	$61,975.00
FY08	NMEDCEN PTSMOUTH	PEDIATRICIAN/ NEUROLOGY	210	O-3	$61,975.00
FY08	NMEDCEN PTSMOUTH	PEDIATRICIAN/ ADOLESCENT	210	O-4	$61,975.00
FY08	NMEDCEN PTSMOUTH	BIOMED PHOTO	HM	E-6	$28,625.00
FY08	NMEDCEN PTSMOUTH	ORAL PATHLGIST	220	O-6	$61,975.00
FY08	NMEDCEN PTSMOUTH	DERM TECH	HM	E-5	$28,625.00
FY08	NH KEFLAVIK IC	PEDIATRICIAN	210	O-3	$64,315.27
FY08	NMEDCEN PTSMOUTH	OPTICIAN	HM	E-6	$28,625.00
FY08	CC PTSMTH NH	CORPSMAN	HM	E-4	$28,625.00
FY08	BRMCL NSY NORVA	DIVING TECH	HM	E-6	$28,625.00
FY08	CC PTSMTH NH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRMCL B LC	SURFACE IDC	HM	E-6	$28,625.00
FY08	NMEDCEN PTSMOUTH	CV TECH	HM	E-5	$28,625.00
FY08	VALREHCENNORVA	CLIN PSYCH	230	O-4	$61,975.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36150/67803	HM	E-3	$28,625.00
FY08	BRMCL B LC	PHARM TECH	HM	E-6	$28,625.00
FY08	BRMCL B LC	PHARMACY TECH	HM	E-4	$28,625.00
FY08	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 01315/67803	HM	E-3	$28,625.00
FY08	BRMCL NS NORFOLK	PHARMARY TECH	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	BASIC X-RAY	HM	E-3	$28,625.00
FY08	TRICARE MLR 2	COMPTROLLER	230	O-4	$61,975.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	SHPYD BDENCL NOR	DENT TECH	DT	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	DENTALMAN	DT	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	DENTALMAN	DT	E-3	$28,625.00
FY08	BRMCL NS NORFOLK	PHYSICIAN ASST	230	O-2	$61,975.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRMCL NS NORFOLK	SURFACE IDC	HM	E-5	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NSHS PORTSMOUTH	UROLOGY TECH/INST	HM	E-5	$28,625.00
FY08	NMEDCEN PTSMOUTH	UROLOGY TECH	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-3	$28,625.00
FY08	CC PTSMTH NH	PHARMACIST	230	O-3	$61,975.00
FY08	NDC MLANT NORVA	DENTALMAN	DT	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	AMB CARE NRS	290	O-3	$61,975.00
FY08	NDC MLANT NORVA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC MLANT NORVA	DENTAL TECH	DT	E-6	$28,625.00
FY08	NDC MLANT NORVA	DENTALMAN	DT	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-3	$28,625.00
FY08	NDCLBR SB NLON	DENTALMAN/OPER	DT	E-3	$28,625.00
FY08	NDCLBR SB NLON	DENTALMAN/OPER	DT	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	UROLOGY TECH	HM	E-4	$28,625.00
FY08	NDC MLANT NORVA	DENT LAB TECH BASIC	DT	E-6	$28,625.00
FY08	NDC MLANT NORVA	DENT LAB TECH BASIC	DT	E-6	$28,625.00
FY08	BRMCL B LC	SURFACE IDC	HM	E-6	$28,625.00
FY08	NMEDCEN PTSMOUTH	AMB CARE NRS	290	O-3	$61,975.00
FY08	NDC MLANT NORVA	DENT TECH	DT	E-4	$28,625.00
FY08	BRCL S OCEA	ADV X-RAY	HM	E-5	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$28,625.00
FY08	CC PTSMTH NH	PHYSICIAN ASST	230	O-4	$61,975.00
FY08	CC PTSMTH NH	PHARM TECH	HM	E-6	$28,625.00
FY08	NDC MLANT NORVA	DENT TECH	DT	E-3	$28,625.00
FY08	NDC MLANT NORVA	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC MLANT NORVA	DENT TECH	DT	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	NUC MED TECH	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-5	$28,625.00
FY08	NDC MLANT NORVA	DENT TECH	DT	E-5	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-4	$28,625.00
FY08	NDC MLANT NORVA	DENT TECH SS	DT	E-4	$28,625.00
FY08	NDC MLANT NORVA	DENTAL TECH	DT	E-4	$28,625.00
FY08	NDCLBR SB NLON	DENTAL TECH	DT	E-5	$28,625.00
FY08	NDC MLANT NORVA	DENT TECH	DT	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	CYTO TECH	HM	E-4	$28,625.00
FY08	NDCLBR SB NLON	COMPRE DENT	220	O-3	$61,975.00
FY08	BRMCL B LC	CORPSMAN	HM	E-6	$28,625.00
FY08	NMEDCEN PTSMOUTH	ENT TECH	HM	E-3	$28,625.00
FY08	NMEDCEN PTSMOUTH	CYTO TECH	HM	E-5	$28,625.00
FY08	BRMCL B LC	CORPSMAN	HM	E-6	$28,625.00
FY08	BRMCL B LC	CORPSMAN	HM	E-6	$28,625.00
FY08	BRMCL B LC	CORPSMAN	HM	E-4	$28,625.00
FY08	BRMCL NS NORFOLK	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	BRMCL B LC	CORPSMAN	HM	E-4	$28,625.00
FY08	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36160/67803	HM	E-3	$28,625.00
FY08	BRMCL NS NORFOLK	MED LAB TECH	HM	E-6	$28,625.00
FY08	BRMCL B LC	MED LAB TECH	HM	E-6	$28,625.00
FY08	BRMCL B LC	MED LAB TECH	HM	E-6	$28,625.00
FY08	BRMCL NS NORFOLK	MED LAB TECH ADVANCED	HM	E-6	$28,625.00
FY08	BRMCL NS NORFOLK	SURFACE IDC	HM	E-5	$28,625.00
FY08	BRMCL WPNSTA YTW	CORPSMAN	HM	E-6	$28,625.00
FY08	NDC MLANT NORVA	ENDODONTIST	220	O-5	$61,975.00
FY08	NMEDCEN PTSMOUTH	MED LAB TECH ADV	HM	E-5	$28,625.00
FY08	NMEDCEN PTSMOUTH	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	MED LAB TECH ADV	HM	E-4	$28,625.00
FY08	CC PTSMTH NH	MED LAB TECH	HM	E-5	$28,625.00
FY08	NDCLBR SB NLON	OPERAT DENT	220	O-5	$61,975.00
FY08	NDCLBR SB NLON	ORAL DIAGNOS	220	O-3	$61,975.00
FY08	BRMCL B LC	CORPSMAN	HM	E-5	$28,625.00
FY08	NMEDCEN PTSMOUTH	HISTO TECH	HM	E-6	$28,625.00
FY08	NDCLBR DAM NECK	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC MLANT NORVA	PROSTHODONTIST	220	O-4	$61,975.00
FY08	BRMCL NS NORFOLK	ADV X-RAY	HM	E-6	$28,625.00
FY08	BRMCL B LC	BASIC X-RAY	HM	E-4	$28,625.00
FY08	BRMCL NS NORFOLK	OPTICIAN	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	HEMO/APHERESIS	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	ENT TECH	HM	E-4	$28,625.00
FY08	NMEDCEN PTSMOUTH	HISTO TECH	HM	E-6	$28,625.00
FY08	BMEDCL S WILGR	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC BR ST MAWGAN	SURFACE IDC	HM	E-6	$39,680.36
FY08	NMC BR ST MAWGAN	STAFF NRS/M-SURG	290	O-3	$64,315.27
FY08	NMC BR ST MAWGAN	PHARM TECH	HM	E-4	$28,377.91
FY08	NH OAK HARBOR WA	SAR TECH	HM	E-5	$28,625.00
FY08	NDC YOKOSUKA JA	PERIODONTIST	220	O-5	$61,975.00
FY08	NDC YOKOSUKA JA	COMPTROLLER/ADMIN DENT SVC	230	O-3	$61,975.00
FY08	NH BREMERTON WA	PHARMACY TECH	HM	E-4	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$28,625.00
FY08	NH OAK HARBOR WA	ADV X-RAY	HM	E-4	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BMEDCL S WILGR	PHARM TECH	HM	E-5	$28,625.00
FY08	NDC BR INGLESIDE	DENTALMAN (90S)	DT	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY08	NHBRCL EVERETT	BASIC X-RAY	HM	E-5	$28,625.00
FY08	NDCLBR S WHIDB	DENTALMAN	DT	E-3	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN/CLIN	HM	E-3	$28,625.00
FY08	NH OAK HARBOR WA	STAF NRS/PATIENT EDUCATION	290	O-3	$61,975.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NDC NE NEWPORT	DENTAL TECH	DT	E-5	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NHBRCL VICP	HOSPITAL CORPSMAN	HM	E-4	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN/CLIN	HM	E-3	$28,625.00
FY08	NH BREMERTON WA	BASIC X-RAY	HM	E-4	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NDC NW BREM	ENDODONTIST	220	O-5	$61,975.00
FY08	NH OAK HARBOR WA	HOSPITALMAN/CLIN	HM	E-3	$28,625.00
FY08	NDC NW BREM	DENT LAB TECH BASIC	DT	E-6	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NDC NW BREM	DENTALMAN/PERIO	DT	E-3	$28,625.00
FY08	NDC NW BREM	DENTALMAN	DT	E-3	$28,625.00
FY08	NDC NW BREM	DENTAL TECH/X-RAY	DT	E-4	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN/CLIN	HM	E-3	$28,625.00
FY08	NHBRCL EVERETT	PHARM TECH	HM	E-5	$28,625.00
FY08	NMC BR ST MAWGAN	HOSPITALMAN	HM	E-3	$24,144.05
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-6	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-7	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-6	$28,625.00
FY08	NH OAK HARBOR WA	PT TECH	HM	E-3	$28,625.00
FY08	NH OAK HARBOR WA	CAST RM TECH	HM	E-4	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-6	$28,625.00
FY08	NDCLBR S WHIDB	DENTAL TECH/CSR	DT	E-4	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	BRDCL EVERETT WA	DENTALMAN (7F)	DT	E-3	$28,625.00
FY08	NDC NW BREM	ADMIN/ADMIN DENT SVC	230	O-4	$61,975.00
FY08	NH OAK HARBOR WA	HOSPITALMAN/CLIN	HM	E-3	$28,625.00
FY08	NDC NE NEWPORT	DENT ADMIN TECH	DT	E-4	$28,625.00
FY08	NHBRCL EVERETT	PHARM TECH	HM	E-6	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH BREMERTON WA	LAB TECH ADV	HM	E-3	$28,625.00
FY08	CC NEWPT RI	OPTICIAN	HM	E-5	$28,625.00
FY08	NMC BR ST MAWGAN	FAM PHYS	210	O-5	$84,005.13
FY08	NH OAK HARBOR WA	PHARM TECH	HM	E-3	$28,625.00
FY08	NMC BR ST MAWGAN	CORPSMAN	HM	E-4	$28,377.91
FY08	NDCLBR S WHIDB	ENDODONTIST	220	O-5	$61,975.00
FY08	NDC NE NEWPORT	DENT LAB TECH BASIC	DT	E-5	$28,625.00
FY08	CC NPT MC U DT	CORPSMAN/ FMF/ MOB TO 32720/67652	HM	E-4	$28,625.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NPT MC U DT	CORPSMAN/ FMF/ MOB TO 32725/67652	HM	E-4	$28,625.00
FY08	CC NPT MC U DT	CORPSMAN/ FMF/ MOB TO 32825/67652	HM	E-4	$28,625.00
FY08	CC NPT MC U DT	CORPSMAN/FMF/ MOB TO 00205/3752A	HM	E-5	$28,625.00
FY08	NMC BR ST MAWGAN	PREV MED TECH	HM	E-5	$33,922.14
FY08	NH OAK HARBOR WA	PHARM TECH	HM	E-5	$28,625.00
FY08	CC NPT MC U DT	CORPSMAN/ FMF/ MOB TO 32715/67652	HM	E-4	$28,625.00
FY08	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC BR ST MAWGAN	CORPSMAN	HM	E-4	$28,377.91
FY08	NH OAK HARBOR WA	PHARM TECH	HM	E-5	$28,625.00

Appendix C
FY08 Conversions

Convert Yr	Activity	Title	Designator	Gr Rank	Mil Cost
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	VMEDADMINU	HOSPITAL CORPSMAN	HM	E-6	$28,625.00
FY08	NMC BR ST MAWGAN	CORPSMAN	HM	E-7	$45,699.60
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NMC BR ST MAWGAN	DENT ADMIN	HM	E-6	$39,680.36
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00
FY08	CC NEWPT RI	MED TECH	230	O-2	$61,975.00
FY08	NDCLBR S WHIDB	DENTALMAN/CSR	DT	E-3	$28,625.00
FY08	CC NPT MC U DT	FAM PHYS/MOB TO 00165/3752A	210	O-4	$61,975.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH BREMERTON WA	PHARM TECH	HM	E-3	$28,625.00
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00
FY08	NMC BR ST MAWGAN	DENT TECH	HM	E-4	$28,377.91
FY08	NDC NE NEWPORT	ENDODONIST	220		$61,975.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00
FY08	NMC BR ST MAWGAN	BASIC X-RAY	HM	E-3	$24,144.05
FY08	NDC NE NEWPORT	COMPRE DENT	220	O-3	$61,975.00
FY08	NH OAK HARBOR WA	HOSPITALMAN	HM	E-3	$28,625.00
FY08	NH BREMERTON WA	HISTO TECH	HM	E-5	$28,625.00
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00
FY08	CC NEWPT RI	FAM PRAC	210	O-4	$61,975.00

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 13, 2007

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter provides the Department of the Navy response regarding military to civilian conversions within the Navy Medical Department as required by the Fiscal Year (FY) 2007 National Defense Authorization Act (Public Law 109-364, Section 742). As required by law, detailed reports of the 215 billets converted to civilian positions in FY 2006, 689 billets programmed for conversion in FY 2007 and 1,036 billets programmed for conversion in FY 2008 are enclosed.

Based on our cost, quality and access experience with FY 2005 and FY 2006 conversions to date, I recertify that the FY 2006 conversions did not increase cost while access and quality were maintained.

Based on our current analysis of fully burdened governmental personnel costs, I certify that 559 of the 689 FY 2007 and 791 of the 1,036 FY 2008 military positions programmed for conversion are achievable without increasing cost or decreasing access and quality. We will continue to evaluate the remaining 130 conversions for FY 2007 and the remaining 245 conversions for FY 2008 to determine if they will be cost effective or impact access and quality of care.

Consistent with the requirements of the FY 2006 National Defense Authorization Act (Section 744) and FY 2007 National Defense Authorization Act (Section 742), 130 FY 2007 military positions and, if necessary, 245 FY 2008 military positions will be restored as expeditiously as possible.

I will continue to monitor these conversions and will promptly notify you should any of this information change. A similar letter has been sent to Chairman Skelton. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosures:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 13, 2007

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

This letter provides the Department of the Navy response regarding military to civilian conversions within the Navy Medical Department as required by the Fiscal Year (FY) 2007 National Defense Authorization Act (Public Law 109-364, Section 742). As required by law, detailed reports of the 215 billets converted to civilian positions in FY 2006, 689 billets programmed for conversion in FY 2007 and 1,036 billets programmed for conversion in FY 2008 are enclosed.

Based on our cost, quality and access experience with FY 2005 and FY 2006 conversions to date, I recertify that the FY 2006 conversions did not increase cost while access and quality were maintained.

Based on our current analysis of fully burdened governmental personnel costs, I certify that 559 of the 689 FY 2007 and 791 of the 1,036 FY 2008 military positions programmed for conversion are achievable without increasing cost or decreasing access and quality. We will continue to evaluate the remaining 130 conversions for FY 2007 and the remaining 245 conversions for FY 2008 to determine if they will be cost effective or impact access and quality of care.

Consistent with the requirements of the FY 2006 National Defense Authorization Act (Section 744) and FY 2007 National Defense Authorization Act (Section 742), 130 FY 2007 military positions and, if necessary, 245 FY 2008 military positions will be restored as expeditiously as possible.

I will continue to monitor these conversions and will promptly notify you should any of this information change. A similar letter has been sent to Chairman Levin. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosures:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Member

REPORT TO CONGRESS

METHODOLOGY TO CERTIFY MEDICAL MILITARY TO CIVILIAN CONVERSIONS FOR FISCAL YEAR 2008

PREPARED BY
Bureau of Medicine and Surgery, Department of the Navy
2300 E Street, NW, Washington, DC 20372-5300

July 2007

Report Requirement

Under the guidelines of Section 742 of the Fiscal Year 2007 Defense Authorization Act, Public Law 109- 364, the Secretary of the Navy submits the following report addressing the FY 2008 medical military to civilian conversions.
The report includes the following sections:

A. The methodology used in making determinations
B. The number of positions planned for conversion.
C. The results of a market survey by area and availability of providers
D. An analysis of direct and purchased care.
E. The effect of conversions upon recruiting and retention
F. The comparison of full costs of conversions
G. The effect of conversions upon readiness.
H. Positions scheduled to be converted in FY09
I. Conclusions

A. Methodology

The methodology in making the determination necessary for certification begins with review of military requirements. The Operational Support Algorithm (Figure 1) determines military essentiality and the ultimate demand signal for our uniformed medical force. There are three components to the algorithm:

(1) Daily Operational Support: medical personnel who are organic to and a daily part of the command structures of the Fleet and Fleet Marine Force (FMF)

(2) Surge personnel: dual use personnel required to augment deploying force, working in our Force Projection Platforms, i.e. Hospitals and Clinics who augment Marine Corps units, EMF's, T-AH, casualty receiving ships and serve as our Individual Augment manpower pool

(3) Force sustainment: personnel required to insure that we are acquiring and training the requisite specialty inventories for an adequately sized and clinically proficient medical force.

Billets not included in requirements defined by the Operational Support Algorithm (OSA) were reviewed by the Center For Naval Analyses (CNA). CNA validated that the billets were not contained within the OSA and further identified which billets were most cost effective for conversion.

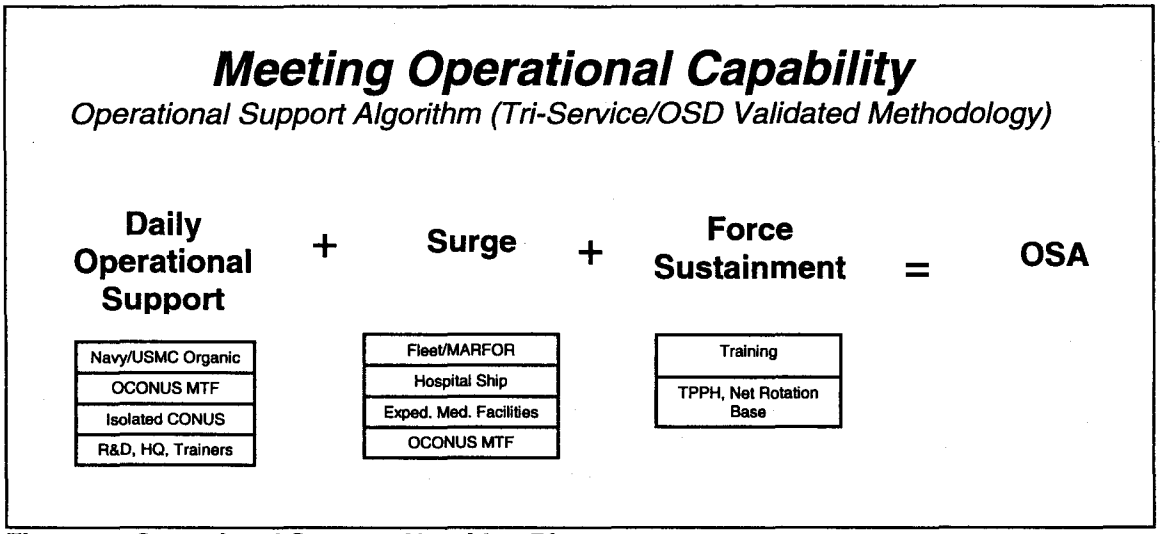


Figure 1: Operational Support Algorithm Diagram

The billets identified by CNA for possible conversion were forwarded to affected commands to review affordability, hireability, and availability. After reviewing business plans and hiring projections, Medical Commanders recommended modifications. This process is ongoing and allows commands to have an active role in determining what type of civilian positions to hire. Additionally, for those billets identified for FY07 and FY08 we employed an outside contractor, Altarum, to perform a market survey in affected areas to determine availability and to compare full costs in those areas for the planned conversions.

Additionally, a preliminary DoD PAE "fully burdened cost" model, which estimates the total cost to the government of a military position was considered. This estimate would increase the cost of a military billet by 26% over the composite rate.

B. Number of billets planned for conversion

In FY08, the total number of planned conversions is 1,036 positions (802 CONUS and 234 OCONUS). These planned conversions include 2 General Medical Department Officers, 36 Medical Corps Officers, 45 Dental Corps Officers, 49 Medical Service Corps Officers, 29 Nurse Corps Officers, and 875 enlisted members. Table 1 displays the breakdown of officers by designator and rank. Table 2 displays the breakdown of enlisted by rating and rank.

Table 1. Officer Billets Converted by Designator and Rank for FY08 and MRR Conversions

CORPS	Captain O-6	Commander O-5	Lieutenant Commander O-4	Lieutenant O-3	Lieutenant Junior grade O-2	Ensign O-1	Grand Total
General Officer (2XXX)	1	0	1	0	0	0	**2**
Medical Corps (21XX)	1	7	18	10	0	0	**36**
Dental Corps (22XX)	8	13	12	12	0	0	**45**
Medical Service Corps (23XX)	0	1	11	25	11	1	**49**
Nurse Corps (29XX)	1	1	3	13	6	5	**29**
Grand Total	**11**	**22**	**45**	**60**	**17**	**6**	**161**

Table 2. Enlisted billets converted by rating and rank for FY08 and MRR conversions

BILLET TITLE	E-9	E-8	E-7	E-6	E-5	E-4	E-3	Grand Total
Hospital corpsman (HM)	2	3	10	76	145	194	251	**681**
Dental corpsman (DT)	0	0	0	5	28	46	112	**191**
Storekeeper (SK)	0	0	0	0	1	0	2	**3**
Grand Total	**2**	**3**	**10**	**81**	**174**	**240**	**365**	**875**

C. Marketing Survey and Availability Analysis

Navy Medicine relied upon an analysis conducted by an outside contractor to project market availability of civilian medical and dental care providers by locality (zip code) and to estimate the full cost of replacing military personnel with civilians or contractors. This model incorporated market constraints based on the Bureau of Labor and Statistics, Salary.com and other external data to identify the ratio of specialists per 100,000 population in a market and salaries. Using the calculated ratio to predict constrained areas and forecast the potential costs of hiring a civilian or contractor, the model identified those FY08 billets in moderate or highly constrained markets.

The market analysis uses the Annual DoD Composite Rate for military positions selected for conversion and examines the market availability in the area where the position is located. The model estimates full costs for civilian positions (including costs associated with recruiting, salary benefits, training and other costs) through a 25% increase over the civilian rate.

The model projects that 463 of the 802 CONUS projected FY06 conversions would be difficult to fill with civilians or contractors, at a cost equal to or less than the composite rate for military personnel. Our experience confirms this finding as many professional positions in moderately to highly constrained markets are difficult to fill and appear to require higher priced contractors or higher-grade GS personnel for the Navy to successfully fill these positions. Tables 3 through 5 display the hiring success rates by job title and fiscal year for previous conversions.

Table 3. Navy Medicine's hiring statistics of FY05 conversions

TITLE	SERIES	BUDGETED HIRES	HIRES (BUDGETED)	non-HIRES (BUDGETED)	SUCCESS RATE (%)
PHARMACIST	660	23	18	5	78%
DENTAL ASSISTANT	681	161	123	38	76%
NURSE	610	91	69	22	76%
DENTAL HYGIENIST	682	4	3	1	75%
DENTIST	680	64	47	17	73%
MEDICAL TECHNOLOGIST	644	48	35	13	73%
MEDICAL TECHNICIAN	645	96	69	27	72%
DIAG RAD TECH	647	17	11	6	65%
REHAB THERAPIST	636	21	13	8	62%
MED NUC TECH	642	5	3	2	60%
NURSE ASSISTANTS	621	69	37	32	54%
OPTOMETRIST	662	2	1	1	50%
PRACTICAL NURSE	620	63	29	34	46%
PHYSICIAN ASSISTANT	603	20	5	15	25%

Table 4. Navy Medicine's hiring statistics of FY06 conversions

TITLE	SERIES	BUDGETED HIRES	HIRES (BUDGETED)	non-HIRES (BUDGETED)	SUCCESS RATE (%)
DENTAL LAB TECH	683	4	3	1	75%
HEALTH & AIDE TECH	640	17	12	5	71%
REHAB THERAPIST	636	6	4	2	67%
PHARMACY TECH	661	11	7	4	64%
DENTAL ASSISTANT	681	47	28	19	60%
DENTIST	680	26	15	11	58%
LAB MED TECHNICIAN	650	8	4	4	50%
MED TECHNICIAN	645	51	16	35	31%

Table 5. Navy Medicine's hiring statistics of FY05 and FY06 conversions

TITLE	SERIES	BUDGETED HIRES	HIRES (BUDGETED)	non-HIRES (BUDGETED)	SUCCESS RATE (%)
NURSE	610	109	84	25	77%
MEDICAL TECHNOLOGIST	644	76	58	18	76%
DENTAL ASSISTANT	681	208	151	57	73%
DIAG RAD TECH	647	23	16	7	70%
DENTIST	680	90	62	28	69%
OPTOMETRIST	662	3	2	1	67%
MED NUC TECH	642	6	4	2	67%
REHAB THERAPIST	636	27	17	10	63%
MEDICAL OFFICER	602	84	51	33	61%
MEDICAL TECHNICIAN	645	147	85	62	58%
NURSE ASSISTANT	621	71	39	32	55%
PRACTICAL NURSE	620	65	31	34	48%
PHYSICIAN ASSISTANT	603	25	10	15	40%
LAB MED TECHNICIAN	650	11	2	9	18%

Using the model to evaluate the availability of civilian specialties for FY08, those specialties identified as highly constrained (specialties experiencing shortages in specific medical labor markets) were identified. Pairing this data with the experiential hiring data in Table 5, 245 positions (24%) were identified as high risk for conversion based on personnel costs and/or the availability of the skill set in the civilian market. Table 6 summarizes these billets by medical specialty. Appendix A is a detailed billet list of these positions. Appendix B lists those billets where the risk is considered low to moderate for conversion.

Table 6. Summary of high risk conversion billets

TITLE	FY08
MEDICAL TECHNOLOGIST	21
DENTAL ASSISTANT	37
DENTAL LAB TECHNICIAN	7
DIAG RAD TECHNICIAN	5
DENTIST	26
MED NUC TECHNICIAN	6
MEDICAL OFFICER	12
MEDICAL TECHNICIAN	109
PHYSICIAN ASSISTANT	4
MEDICAL LAB TECHNICIAN	18
TOTAL	245

D. Access, Quality and Cost in the Direct and Purchased Care Systems

Direct Care

1. The availability of staff directly correlates with cost and access. The total supply of available active duty providers and support staff depends upon the number of authorized billets, which include the billets required for readiness and those used in training programs and day - to - day operations as defined by the OSA model. The supply of Federal civilian and contract providers is dependent upon manning authorizations, funding availability and labor market forces. The demand for care in the direct care system is dependent on the size of the local beneficiary population, seasonality of use, and the population's health status.

A comprehensive review of access to care within the Continental United States (CONUS) direct care system, examined the percent of appointments meeting access standards and the average days to get an appointment. The data included all primary care appointment types (acute, routine, specialty, and wellness) within CONUS activities since (a) the majority of military provider billets converted were primary care based, (b) conversion hiring occurred at CONUS MTFs, and (c) there were no inpatient specific specialty conversions. A longitudinal study from August 2003 through September 2006 searched for any variation in the defined categories.

Results of the comprehensive review conclude that appointments continue to be within the TRICARE Access Standards.

Purchased Care

2. The availability of network providers and the geographical location of beneficiaries are factors affecting both cost and access of purchased care.

TRICARE beneficiaries enrolled in TRICARE Prime are guaranteed access to care in accordance with established access standards. Military medicine is required to refer beneficiaries into the managed care support network if the wait time in the direct care system exceeds these standards. Navy reviewed Purchased Care metrics on a longitudinal basis from October 2002 - September 2006. The data examined included CONUS Navy-wide inpatient and outpatient purchased care. Inpatient purchased care, measured by Relative Weighted Product (RWP), climbed steadily since 2003, with no appreciable increase when military to civilian conversions began. Outpatient purchased care, measured by Relative Value Unit (RVU), varied over the three fiscal years with no discernable link to military to civilian conversions.

The planned military to civilian conversions to date have not had a measurable impact upon purchased care from the network or access to care. The challenge remains to ensure the 7,790 conversions and 901 divestitures between 2005 and 2013 coupled with the current efforts to fill direct care systems in a highly competitive medical marketplace do not decrease access to care in the direct care system, force care to the network or increase the cost of healthcare. Table 7 describes the projected conversions

and divestitures for FY 2005 – FY 2013.

Table 6. Projected Conversions and Divestitures for FY 2005 – FY 2013

FY	POM 06 Conversions	PDM IV Conversions	Total Conversions	PDM IV Divestitures	Total Active Duty Conversions or Divestitures
2005	1,772*	0	**1,772**	0	**1,772**
2006	215	0	**215**	0	**215**
2007	689	0	**689**	0	**689**
2008	802	234	**1,036**	489	**1,525**
2009	789	234	**1023**	220	**1,243**
2010	755	246	**1001**	72	**1,073**
2011	403	250	**653**	41	**694**
2012	0	729	**729**	29	**758**
2013	0	672	**672**	50	**722**
Total	**5,425**	**2,365**	**7,790**	**901**	**8,691**

Quality of Care

Navy Medicine demands the same quality of care standards from all employees, including new military to civilian conversion hires, regardless of human resource category (military, Federal civilian, or contractor). No decrease in quality of care has been noted due to military to civilian conversions.

Navy has multiple processes and performance measures to ensure high quality healthcare is being delivered. However, in order to obtain individual position level information the methodology for certification focused on ensuring that the hiring process of Federal civilians or contractors provided the appropriate quality level required.

In order to ensure that the federal civilian recruitment process meets the quantitative and qualitative hiring needs of the activity, a three-step process is used. Specifically,

1. The Navy's Federal civilian recruitment process responds to the demand signal provided by an activity to hire a federal civilian with certain predetermined criteria (knowledge, skills, and abilities). This process ensures the appropriate experience and education requirements are met to ensure the minimum qualifications and the proper grading of the position. This process creates a pool of potential applicants. The pool then is referred to the selecting official of the activity requesting the recruitment action.

2. The activity interviews the pool of candidates and either makes a selection based on predetermined criteria or not. If selecting officials question or are dissatisfied with the qualifications or quality of specific applicants the selecting officials are encouraged to discuss these concerns with their human resource advisors. When concerns are raised, additional reviews are conducted prior to making a job offer would be made.

3. Credentialing and Privileging

Once the selecting officials tender an offer the candidate is required to meet the condition of the Bureau of Medicine and Surgery (BUMED) Instruction 6320.66D entitled "Credentials Review and Privileging Program". The Credentialing Review and Privileging program does not differentiate between active duty, federal civilian, or contractor. The BUMED instruction references DoD directive 6025.13, entitled "Medical Quality Assurance (MQA) in the Military Health System (MHS)". Neither the BUMED nor DoD instruction differentiates between active duty and civilian (federal civilian or contractors) personnel.

Contract personnel hired are required to meet the same quality standards as other personnel. Credentialing and privileging of contractors use the same process as that is used for Federal civilians.

E. Recruiting and Retention

Conclusive impact upon recruiting and retention is unknown at this time. Applicants to direct accession programs are fully trained professionals seeking to join the Navy Medicine team. In most cases, direct accession applicants are looking at the military as a long-term career, so during interviews this subject is mentioned and discussed, thus causing some concern for these applicants; however, there has been little indication that military to civilian conversions have deterred a direct accession applicant's or scholarship applicant's desire to join the Navy.

Losses in Navy Medicine active duty personnel have exceeded gains for some specialties affected by military to civilian conversions. Anecdotally, some medical officers have elected to retire and accept military to civilian conversion positions. In a few specialties, some officers view additional military to civilian conversions as jeopardizing their career potential and have made the decision to leave prior to the 10-year active duty mark. Despite these findings, the military to civilian conversions have had a minimal impact on retention to date.

F. Estimated Cost

The current cost of the 802 billets identified in POM-06 for conversion in FY08 based on the "fully burdened" (total cost to the Government) cost methodology is $64M. The estimated cost of these same conversions based on the Altarum model is $61M for Government Service civilians and contractors. The 209 OCONUS billets and the 25 Full Time Support billets identified in PDM IV for conversion in FY08 were not included in this costing model. A feasibility study conducted by CNA concluded that, "the potential cost savings of OCONUS conversions isn't significant enough to outweigh the considerable risks."

The supply of some healthcare professionals such as specialized physicians, dentists, pharmacists, nurses, other providers and various medical technicians is low and projected to remain steady or grow at a slower rate than demand, which continues to

grow. High demand and low supply may drive the cost of these professionals above that which Navy Medicine can pay under current civilian pay authorities.

G. Readiness

As discussed earlier, the military billets selected for conversion were above the operational requirement identified by the OSA model and validated by the CNA Corporation. The OSA model does not take into account all missions Navy Medicine is directed to accomplish and this omission is creating a stress on the direct care system. Increasing shortages caused by the inability to hire health professionals and additional cuts will cause an increased migration to the private sector care. Shifting more care to the network will increase the overall cost of military healthcare. Sustainment of the deployment tempo in current GWOT operations will be challenging over time, particularly as an increasing number of Individual Augmentation requirements are filled by Navy Medicine.

H. Identification of conversions

Appendix C is a detailed table of the individual military billets to be converted to a civilian position in FY09, including the location of each position and local availability for hire. Table 7 displays the breakdown of officers by designator and rank. Table 8 displays the breakdown of enlisted by rating and rank.

Table 7. Officer Billets Converted by Designator and Rank for FY09 and MRR Conversions

CORPS	Captain O-6	Commander O-5	Lieutenant Commander O-4	Lieutenant O-3	Lieutenant Junior grade O-2	Ensign O-1	Grand Total
General Officer (2XXX)	0	0	0	0	0	0	**0**
Medical Corps (21XX)	1	7	12	35	0	0	**55**
Dental Corps (22XX)	6	9	10	10	0	0	**35**
Medical Service Corps (23XX)	0	1	8	25	11	2	**47**
Nurse Corps (29XX)	0	4	2	25	7	0	**38**
Grand Total	**7**	**21**	**32**	**95**	**18**	**2**	**175**

Table 8. Enlisted billets converted by rating and rank for FY09 and MRR conversions

BILLET TITLE	E-9	E-8	E-7	E-6	E-5	E-4	E-3	Grand Total
Hospital corpsman (HM)	0	2	18	60	144	202	245	671
Dental corpsman (DT)	0	0	0	9	22	50	96	177
Grand Total	**0**	**2**	**18**	**69**	**166**	**252**	**341**	**848**

I. Conclusions

Based on cost and availability data, Navy can only partially certify military to civilian conversions for FY 08. Data suggests that 791 billets (Appendix B) will be cost-effective

to convert and local labor markets can support availability. Conversion of 245 billets (Appendix A) present considerable risk due to cost or availability and should not be certified for conversion. Consistent with the legal requirements of FY 06 National Defense Authorization Act (Sec 744) and FY 07 National Defense Authorization Act (Sec 742), if necessary, 245 military positions will be restored as expeditiously as possible.

.

FY08 Appendix A - High Risk Billets

Activity	Zip Code	GS TITLE 2	Civ Occ Code2	Cost of Military Billet	FY07 CIVRATE	Special Salary Rate
CC PTSMTH NH	23708	Physician's Assistant	603	61,975	$80,839	
NH PENSACOLA FL	32508	Medical Officer: Pathology	602	61,975	$149,508	
NHOSP GLAKES	60088	Medical Officer: Pathology	602	61,975	$159,158	
NMC SDGO CA	92140	Medical Officer: Pediatrician Nephrology	602	61,975	$159,267	
NH LEMOORE	93246	Physician's Assistant	603	61,975	$75,465	
NDCLBR S OCEAN	23460	Dental Officer: Prostho	680	61,975	$149,508	
NDCLBR S N ISL	92135	Dental Officer: Oral Max Sgn	680	61,975	$159,267	
NDCLBR S N ISL	92135	Dental Officer	680	61,975	$159,267	
BRDCL MCCDC QUAN	22134	Dental Officer	680	61,975	$156,953	
BRDCL US AN	21402	Dental Officer: Ortho	680	61,975	$156,953	
BRDCL US AN	21402	Dental Officer	680	61,975	$156,953	
NDCLBR S WHIDB	98277	Dental Officer: Endo	680	61,975	$157,095	
BRDNCL S MFS	38054	Dental Officer: Perio	680	61,975	$149,508	
NDCLBR SB NLON	23521	Dental Officer	680	61,975	$159,844	
CC GROTON CT	6349	Physician's Assistant	603	61,975	$80,683	
NDC CP PENDLETON	92055	Dental Officer	680	61,975	$159,267	
NDC MLANT NORVA	23521	Dental Officer: Endo	680	61,975	$149,508	
NDC MLANT NORVA	23521	Dental Officer: Prostho	680	61,975	$149,508	
NDC SW SAN DIEGO	92140	Dental Officer	680	61,975	$159,267	
NDC SW SAN DIEGO	92140	Dental Officer	680	61,975	$159,267	
NDC SW SAN DIEGO	92140	Dental Officer: Prostho	680	61,975	$159,267	
NMEDCEN PTSMOUTH	23708	Dental Officer: Oral Path	680	61,975	$149,508	
NDC SW SAN DIEGO	92140	Dental Officer: Perio	680	61,975	$159,267	
CC NEW ORLNS	70152	Physician's Assistant	603	61,975	$75,465	
CC NPT MC U DT	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
CC NEWPT RI	2840	Medical Officer: Fam Practice	602	61,975	$160,153	
NHOSP 29 PALMS	92134	Medical Officer: Pathology	602	61,975	$149,508	
NDC GREAT LAKES	60088	Dental Officer: Oral Max Sgn	680	61,975	$159,158	
NDC GREAT LAKES	60088	Dental Officer: Endo	680	61,975	$159,158	
NDC P ISL SC	29902	Dental Officer: Oral Max Sgn	680	61,975	$149,508	
NDC G COAST PNSC	32508	Dental Officer: Endo	680	61,975	$149,508	
NDC NW BREM	98311	Dental Officer: Endo	680	61,975	$157,095	
NDC YOKOSUKA JA	99999	Dental Officer: Perio	680	61,975	$149,508	
CC PTSMTH NH	23708	Medical Technician	645	28,625	$49,152	
CC PTSMTH NH	23708	Medical Technician	645	28,625	$49,152	
NMC ANPOLIS MD	21402	Medical Technician	645	28,625	$48,171	
NMC ANPOLIS MD	21402	Medical Technician	645	28,625	$48,171	
NNMC BETHESDA	20889	Medical Technical Assistant: CV Tech	650	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technical Assistant: CV Tech	650	28,625	$65,477	

NNMC BETHESDA	20889	Medical Technical Assistant: CV Tech	650	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technologist: Hemo/aph	644	28,625	$72,107	
NNMC BETHESDA	20889	Medical Technical Assistant: Rad Hlth	650	28,625	$65,477	
BMCL BURKE	20841	Medical Technician	645	28,625	$48,171	
NNMC BETHESDA	20889	Medical Technologist: Urol Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technologist: Urol Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNMC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNMC BETHESDA	20889	Medical Technologist: Histo Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technologist: Histo Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technologist: Lab Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technologist: Lab Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technologist: Lab Tech	644	28,625	$65,477	
NNMC BETHESDA	20889	Diagnostic Radiologic Technologist	647	28,625	$53,530	
NNMC BETHESDA	20889	Medical Technologist: Nuc Med	644	28,625	$65,477	
NNMC BETHESDA	20889	Medical Technical Assistant	650	28,625	$65,477	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMC PT MC U DET	23708	Medical Technician	645	28,625	$45,886	
NMC PT MC U DET	23708	Medical Technician	645	28,625	$45,886	
NMC PT MC U DET	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technical Assistant: CV Tech	650	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technical Asst: Endo Tech	650	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technical Asst: Derm Tech	650	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Urol Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Cyto Tech	644	28,625	$62,371	
NHOSP GLAKES	60088	Medical Technologist: Ocular Tech	644	28,625	$73,119	
NHOSP GLAKES	60088	Diagnostic Radiologic Technologist	647	28,625	$54,282	
NHOSP GLAKES	60088	Diagnostic Radiologic Technologist	647	28,625	$54,282	
NMC SDGO CA	92140	Medical Technical Assistant: CV Tech	650	28,625	$66,442	
NMC SDGO CA	92140	Medical Technical Assistant: CV Tech	650	28,625	$66,442	
NMC SDGO CA	92140	Medical Technical Asst: Derm Tech	650	28,625	$66,442	
NMC SDGO CA	92140	Medical Technical Asst: Derm Tech	650	28,625	$66,442	
NMC SDGO CA	92140	Medical Technologist: Urol Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Medical Technologist: ENT Tech	644	28,625	$73,170	
NMC SDGO CA	92140	Medical Technologist: Cyto Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,625	$66,442	

NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Medical Technologist: Lab Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Diagnostic Radiologic Technologist	647	28,625	$54,320	50969
NH CORPUS CHRIST	78419	Medical Technical Assistant: CV Tech	650	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technical Asst: Optician	650	28,625	$62,371	
NMC SDGO CA	92140	Medical Technologist: Urol Tech	644	28,625	$66,442	
NMEDCEN PTSMOUTH	23708	Medical Technologist: ENT Tech	644	28,625	$68,686	
NMEDCEN PTSMOUTH	23708	Medical Technologist: ENT Tech	644	28,625	$68,686	
VHOSP JAX FL	32214	Medical Technologist: ENT Tech	644	28,625	$68,686	
NMEDCEN PTSMOUTH	23708	Medical Technical Assistant	650	28,625	$62,371	
NMC SDGO CA	92140	Medical Technologist: Nuc Med	644	28,625	$66,442	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Laboratory Aid and Technician	683	28,625	$59,284	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
NNDC BETHESDA	20889	Medical Technician	645	28,625	$48,171	
NMC SDGO CA	92140	Medical Technical Assistant	650	28,625	$66,442	
AHS FT S HOUSTON	78234	Medical Technologist: Cyto Tech	644	28,625	$62,371	
NOMI D MI	32570	Medical Technologist: ENT Tech	644	28,625	$68,686	
BRMCL ARL ANNEX	20370	Medical Technician	645	28,625	$48,171	
BRMCL ARL ANNEX	20370	Medical Technician	645	28,625	$48,171	
BRMCL ARL ANNEX	20370	Medical Technician	645	28,625	$48,171	
BRMCL ARL ANNEX	20370	Medical Technologist: Nuc Med	644	28,625	$65,477	
BRMCL NS NORFOLK	23511	Medical Technologist: Nuc Med	644	28,625	$62,371	
BRCL S OCEA	23460	Medical Technician	645	28,625	$45,886	
BRCL S OCEA	23460	Medical Technician	645	28,625	$45,886	
BRCL S OCEA	23460	Medical Technician	645	28,625	$45,886	
BRMCL NSY NORVA	23708	Medical Technician	645	28,625	$45,886	
BRMCL WPNSTA YTW	23691	Medical Technician	645	28,625	$45,886	
NHBRCL NWS SEAL	90740	Medical Technologist: Nuc Med	644	28,625	$67,382	
BRMCL WNY DC	20374	Medical Technician	645	28,625	$48,171	

BRMCL WNY DC	20374	Medical Technician	645	28,625	$48,171	
NH LEMOORE	93246	Medical Technician	645	28,625	$45,886	
BRMEDCL N BRSWK	4011	Medical Technologist: Lab Tech	644	28,625	$62,371	
BRMEDCL BALLSTON	12866	Medical Technical Assistant: Rad Hlth	650	28,625	$62,371	
BMEDCL EC LKHU	8733	Medical Technician	645	28,625	$50,529	
BMEDCL EC LKHU	8733	Medical Technician	645	28,625	$50,529	
BRMCL WNY DC	20374	Medical Technician	645	28,625	$48,171	
BRMCL F DC	20374	Medical Technician	645	28,625	$48,171	
NDCLBR SBRSWK	4011	Dental Assistant	681	28,625	$44,095	
NDCLBR SB NLON	23521	Dental Assistant	681	28,625	$44,009	
NDCLBR SB NLON	23521	Dental Assistant	681	28,625	$44,009	
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,625	$66,397	
BRDNCL S MFS	38054	Dental Laboratory Aid and Technician	683	28,625	$56,472	
NDCLBR SBRSWK	4011	Dental Assistant	681	28,625	$44,095	
BRDNCL S CORPC	78419	Dental Laboratory Aid and Technician	683	28,625	$56,472	
BRMCL NS SDGO	92133	Medical Technologist: Lab Tech	644	28,625	$66,442	
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,625	$66,397	
NDCLBR WS COLTS	20889	Dental Assistant	681	28,625	$43,342	
NMC WALLOPS ISL	23337	Medical Technician	645	28,625	$48,171	
NEHCD BETHESDA	20889	Medical Technical Assistant: Rad Hlth	650	28,625	$65,477	
BRMCL ARL ANNEX	20370	Medical Technician	645	28,625	$48,171	
CC GROTON CT	6349	Medical Technologist: ENT Tech	644	28,625	$73,434	
NNDC BETHESDA	20889	Dental Assistant	681	28,625	$43,214	
BRDCL WNY DC	20374	Dental Assistant	681	28,625	$43,214	
BRDCL WNY DC	20374	Dental Assistant	681	28,625	$43,214	
BRDCL WNY DC	20374	Dental Assistant	681	28,625	$43,214	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
NOSTRA DET BETH	20889	Medical Technical Asst: Optician	650	28,625	$65,477	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	

OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
NHOSP GLAKES	60088	Medical Technical Asst: Derm Tech	650	28,625	$66,397	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
BRMCL YUMA	85369	Medical Technologist: Lab Tech	644	28,625	$62,371	
BDCL CBC PORHUE	93043	Dental Assistant	681	28,625	$44,471	
BDCL S PMUGU	93042	Dental Assistant	681	28,625	$44,471	
NDC NE NEWPORT	2840	Dental Assistant	681	28,625	$44,095	
NDCLBR SB NLON	23521	Dental Assistant	681	28,625	$44,009	
NH LEMOORE	93246	Medical Technologist: Lab Tech	644	28,625	$62,371	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
CC P HUENEME	93043	Diagnostic Radiologic Technologist	647	28,625	$55,088	
CC P HUENEME	93043	Medical Technologist: Lab Tech	644	28,625	$67,382	
CC NEW ORLNS	70152	Medical Technical Asst: Optician	650	28,625	$62,371	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NPT MC U DT	2840	Medical Technician	645	28,625	$49,152	
CC NEWPT RI	2840	Medical Technical Asst: Optician	650	28,625	$66,812	
NHBRCL NWS SEAL	90740	Medical Technologist: Nuc Med	644	28,625	$67,382	
NH PENSACOLA FL	32508	Medical Technologist: Cyto Tech	644	28,625	$62,371	

NMEDCEN PTSMOUTH	23708	Medical Technologist: Cyto Tech	644	28,625	$62,371	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NNMC BETHESDA	20889	Medical Technical Assistant: Rad Hlth	650	28,625	$65,477	
NNMC BETHESDA	20889	Pharmacy Technician	661	28,625	$43,214	
NH CP LEJEUNE NC	28542	Medical Technologist: Cyto Tech	644	28,625	$63,928	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technologist: Lab Tech	644	28,625	$62,371	
NMC HAWAII HI	96860	Medical Technologist: Lab Tech	644	28,625	$62,371	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NMC HAWAII HI	96860	Medical Technologist: Lab Tech	644	28,625	$62,371	
NMC HAWAII HI	96860	Medical Technician	645	28,625	$45,886	
NHOSP GLAKES	60088	Dental Laboratory Aid and Technician	683	28,625	$60,117	
NHOSP GLAKES	60088	Dental Laboratory Aid and Technician	683	28,625	$60,117	
NDC GREAT LAKES	60088	Dental Laboratory Aid and Technician	683	28,625	$60,117	
NDC NW BREM	98311	Dental Laboratory Aid and Technician	683	28,625	$59,337	
NDCLBR NSYDPTSNH	20306	Dental Assistant	681	28,625	$44,095	
NDC NE NEWPORT	2840	Dental Assistant	681	28,625	$44,095	
NDC NE NEWPORT	2840	Dental Officer: Endo	680	61,975	$160,153	
NDC G COAST PNSC	32508	Dental Officer: Oral Max Sgn	680	61,975	$149,508	
NHBRCL NWS SEAL	90740	Medical Technician	645	28,625	$49,573	
NDCLBR S LEMOO	93246	Dental Officer	680	61,975	$149,508	

Activity	Zip Code	GS TITLE 2	Civ Occ Code2	Cost of Military Billet	FY07 CIVRATE	Special Salary Rate
CC PTSMTH NH	23708	Pharmacist	660	61,975	$80,839	75449
NNMC BETHESDA	20889	Dietician and Nutrition	630	61,975	$79,224	
NNMC BETHESDA	20889	Physical Therapist	633	61,975	$79,224	
NMEDCEN PTSMOUTH	23708	Nurse	610	61,975	$68,686	
NMEDCEN PTSMOUTH	23708	Medical Officer: Peds	602	61,975	$149,508	
NMEDCEN PTSMOUTH	23708	Nurse	610	61,975	$68,686	
NMEDCEN PTSMOUTH	23708	Industrial Hygiene	690	61,975	$90,449	
NMC QUANTICO VA	22132	General Biological Science	404	61,975	$94,954	
NH CP PENDLETON	92055	Health Physics	1306	61,975	$96,354	
NBHCL KY WEST FL	33040	Environmental Protection Specialist	028	61,975	$75,465	
NMC SDGO CA	92140	Nurse	610	61,975	$73,170	74263
NMC SDGO CA	92140	Nurse	610	61,975	$73,170	74263
NMEDCEN PTSMOUTH	23708	Medical Officer: Pediatrician Neurology	602	61,975	$149,508	
NMC SDGO CA	92140	Medical Officer: Pediatrician Neurology	602	61,975	$159,267	
BRMCL NS NORFOLK	23511	Physician's Assistant	603	61,975	$75,465	
BRMCL NSWC DLGN	22448	Physician's Assistant	603	61,975	$79,224	
BRMCL NOS IND HD	20640	Physician's Assistant	603	61,975	$79,224	
PHBASE BDENC NOR	23460	Dental Officer	680	61,975	$149,508	
NBHCL ALBANY GA	31704	Nurse	610	61,975	$68,686	
BRMCL NSGD SUG G	78363	Physician's Assistant	603	61,975	$75,465	
NDCLBR SB NLON	23521	Dental Officer	680	61,975	$159,844	
NDCLBR SB NLON	23521	Dental Officer	680	61,975	$159,844	
NDCLBR EC LKHU	8733	Dental Officer	680	61,975	$157,417	
BRMDCL SMERIDI	39309	Physician's Assistant	603	61,975	$75,465	
BRMCL ATLANTA GA	30060	Nurse	610	61,975	$70,260	
BRMDCL CBC GLFPT	39501	Physician's Assistant	603	61,975	$75,465	
NDCLBR S OCEAN	23460	Dental Officer	680	61,975	$149,508	
PHBASE BDENC NOR	23460	Dental Officer	680	61,975	$149,508	
NBHCL MAYPORT FL	32228	Health Systems Specialist	671	61,975	$90,449	
NEHCD BETHESDA	20889	Health Physics	1306	61,975	$94,954	
CC GROTON CT	6349	Psychology	180	61,975	$96,703	
NDC PEARL HARBOR	96860	Dental Officer	680	61,975	$149,508	
NHOSP GLAKES	60088	Environmental Protection Specialist	028	61,975	$80,337	
NMC SDGO CA	92140	Nurse	610	61,975	$73,170	74263
NDC SW SAN DIEGO	92140	Health Systems Specialist	671	61,975	$96,354	
VHOSP JAX FL	32214	Dental Officer	680	61,975	$149,508	
NDC G COAST PNSC	32508	Health Systems Specialist	671	61,975	$90,449	
NDC NE NEWPORT	2840	Dental Officer	680	61,975	$160,153	
NH OAK HARBOR WA	98277	Nurse	610	61,975	$72,172	
LREHABCEN MIRA	92106	Psychology	180	61,975	$96,354	

CC NEW ORLNS	70152	Nurse	610	61,975	$68,686	
VALREHCENNORVA	23511	Psychology	180	61,975	$90,449	
NH CHARLESTON SC	29445	Optometrist	662	61,975	$75,465	
NH CHARLESTON SC	29445	Pharmacist	660	61,975	$75,465	93929
CC NEWPT RI	2840	Nurse	610	61,975	$73,577	
CC NEWPT RI	2840	General Biological Science	404	61,975	$96,890	
VALREHCEN JAX	32214	Psychology	180	61,975	$90,449	
TRICARE MLR 2	23521	Health Systems Specialist	671	61,975	$90,449	
NDC GREAT LAKES	60088	Dental Officer	680	61,975	$159,158	
NDC P ISL SC	29902	Dental Officer	680	61,975	$149,508	
BRDENCL ROTA SP	99999	Dental Officer	680	61,975	$149,508	
NDC EU PLES IT	99999	Health Systems Specialist	671	61,975	$90,449	
NDC NW BREM	98311	Health Systems Specialist	671	61,975	$95,039	
NDC YOKOSUKA JA	99999	Health Systems Specialist	671	61,975	$90,449	
NDC GREAT LAKES	60088	Dental Officer	680	61,975	$159,158	
VENHLTHCEN PTS	23511	Industrial Hygiene	690	61,975	$90,449	
CC PTSMTH NH	23708	Medical Technologist: Lab Tech	644	28,625	$66,812	
CC PTSMTH NH	23708	Pharmacy Technician	661	28,625	$44,095	
NMC ANPOLIS MD	21402	Diagnostic Radiologic Technologist	647	28,625	$53,530	
NNMC BETHESDA	20889	Medical Equip Repair (WG)	4805	28,625	$79,224	
DMCL COLUMBIA	21044	Medical Technician	645	28,625	$48,171	
NNMC BETHESDA	20889	Psychology Aid and Technician	181	28,625	$53,530	
BMCL BOYDS	20841	Medical Technician	645	28,625	$48,171	
NNMC BETHESDA	20889	Medical Technologist: ENT Tech	644	28,625	$72,107	
NNMC BETHESDA	20889	Pharmacy Technician	661	28,625	$43,214	
NNMC BETHESDA	20889	Pharmacy Technician	661	28,625	$43,214	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	

NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Psychology Aid and Technician	181	28,625	$50,991	
NMEDCEN PTSMOUTH	23708	Medical Technician	645	28,625	$45,886	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Urol Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Dental Assistant	681	28,625	$41,164	
NMEDCEN PTSMOUTH	23708	Dental Assistant	681	28,625	$41,164	
NMEDCEN PTSMOUTH	23708	Dental Assistant	681	28,625	$41,164	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Histo Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Histo Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Lab Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Lab Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Pharmacy Technician	661	28,625	$41,164	

NMEDCEN PTSMOUTH	23708	Pharmacy Technician	661	28,625	$41,164	
NMEDCEN PTSMOUTH	23708	Pharmacy Technician	661	28,625	$41,164	
NMEDCEN PTSMOUTH	23708	Diagnostic Radiologic Technologist	647	28,625	$50,991	
NH PCOLA FH PC D	32508	Medical Technologist: Ocular Tech	644	28,625	$68,686	
NH PENSACOLA FL	32508	Pharmacy Technician	661	28,625	$41,164	
NH PENSACOLA FL	32508	Pharmacy Technician	661	28,625	$41,164	
NH PENSACOLA FL	32508	Corrective Therapist	635	28,625	$68,686	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Psychology Aid and Technician	181	28,625	$54,282	
NHOSP GLAKES	60088	Psychology Aid and Technician	181	28,625	$54,282	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technologist: Urol Tech	644	28,625	$66,397	
NHOSP GLAKES	60088	Dental Assistant	681	28,625	$43,821	
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,625	$66,397	
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,625	$66,397	
NHOSP GLAKES	60088	Pharmacy Technician	661	28,625	$43,821	

NHOSP GLAKES	60088	Corrective Therapist	635	28,625	$73,119	
NHOSP GLAKES	60088	Medical Technologist: Nuc Med	644	28,625	$66,397	
NHOSP GLAKES	60088	Psychology Aid and Technician	181	28,625	$54,282	
NMC QUANTICO VA	22132	Medical Technician	645	28,625	$48,171	
NMC QUANTICO VA	22132	Medical Technical Asst: Optician	650	28,625	$65,477	
NMC QUANTICO VA	22132	Medical Technologist: Lab Tech	644	28,625	$65,477	
NMC QUANTICO VA	22132	Medical Technologist: Lab Tech	644	28,625	$65,477	
NMC QUANTICO VA	22132	Medical Technologist: Lab Tech	644	28,625	$65,477	
NMC QUANTICO VA	22132	Medical Technician	645	28,625	$48,171	
NMC QUANTICO VA	22132	Corrective Therapist	635	28,625	$72,107	
NMC QUANTICO VA	22132	Diagnostic Radiologic Technologist	647	28,625	$53,530	
NMC QUANTICO VA	22132	Medical Technician	645	28,625	$48,171	
NMC QUANTICO VA	22132	Medical Technician	645	28,625	$48,171	
VHOSP JAX FL	32214	Medical Equip Repair (WG)	4805	28,625	$75,465	
VHOSP JAX FL	32214	Medical Technician	645	28,625	$45,886	
VHOSP JAX FL	32214	Medical Technician	645	28,625	$45,886	
VHOSP JAX FL	32214	Medical Technician	645	28,625	$45,886	
VHOSP JAX FL	32214	Medical Technologist: Lab Tech	644	28,625	$62,371	
VHOSP JAX FL	32214	Pharmacy Technician	661	28,625	$41,164	
VHOSP JAX FL	32214	Pharmacy Technician	661	28,625	$41,164	
NMC SDGO CA	92140	Medical Equip Repair (WG)	4805	28,625	$80,392	
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,625	$54,320	
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,625	$54,320	
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,625	$54,320	
NMC SDGO CA	92140	Psychology Aid and Technician	181	28,625	$54,320	
NMC SDGO CA	92140	Medical Technologist: Urol Tech	644	28,625	$66,442	
NMC SDGO CA	92140	Dental Assistant	681	28,625	$43,852	
NMC SDGO CA	92140	Dental Assistant	681	28,625	$43,852	
NMC SDGO CA	92140	Pharmacy Technician	661	28,625	$43,852	
NMC SDGO CA	92140	Pharmacy Technician	661	28,625	$43,852	
NMC SDGO CA	92140	Pharmacy Technician	661	28,625	$43,852	
NBHCL KY WEST FL	33040	Medical Technician	645	28,625	$45,886	
NBHCL KY WEST FL	33040	Medical Technician	645	28,625	$45,886	
NBHCL KY WEST FL	33040	Medical Technician	645	28,625	$45,886	
NH CORPUS CHRIST	78419	Medical Technician	645	28,625	$45,886	
NH BREMERTON WA	98310	Medical Technologist: Histo Tech	644	28,625	$65,535	
NH CORPUS CHRIST	78419	Medical Technical Assistant	650	28,625	$62,371	
NH CORPUS CHRIST	78419	Medical Technician	645	28,625	$45,886	
NH CORPUS CHRIST	78419	Medical Technologist: Lab Tech	644	28,625	$62,371	
NH CORPUS CHRIST	78419	Medical Technologist: Lab Tech	644	28,625	$62,371	
NH CORPUS CHRIST	78419	Pharmacy Technician	661	28,625	$41,164	
NH CORPUS CHRIST	78419	Pharmacy Technician	661	28,625	$41,164	
NH CORPUS CHRIST	78419	Diagnostic Radiologic Technologist	647	28,625	$50,991	

NH CORPUS CHRIST	78419	Diagnostic Radiologic Technologist	647	28,625	$50,991	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Lab Tech	644	28,625	$62,371	
VHOSP JAX FL	32214	Medical Technologist: Cyto Tech	644	28,625	$62,371	
NMEDCEN PTSMOUTH	23708	Pharmacy Technician	661	28,625	$41,164	
NMC SDGO CA	92140	Pharmacy Technician	661	28,625	$43,852	
NMC SDGO CA	92140	Pharmacy Technician	661	28,625	$43,852	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Nuc Med	644	28,625	$62,371	
NSHS PORTSMOUTH	23708	Medical Technologist: Urol Tech	644	28,625	$62,371	
NOMI D MI	32570	Medical Technologist: Ocular Tech	644	28,625	$68,686	
BRMCL ARL ANNEX	20370	Diagnostic Radiologic Technologist	647	28,625	$53,530	
BRMCL NS NORFOLK	23511	Medical Technician	645	28,625	$45,886	
BRMCL NS NORFOLK	23511	Medical Technologist: Nuc Med	644	28,625	$62,371	
BRMCL NS NORFOLK	23511	Pharmacy Technician	661	28,625	$41,164	
BRMCL NS NORFOLK	23511	Diagnostic Radiologic Technologist	647	28,625	$50,991	
BRMCL NS NORFOLK	23511	Medical Technical Asst: Optician	650	28,625	$62,371	
BRMCL NS NORFOLK	23511	Medical Technologist: Lab Tech	644	28,625	$62,371	
BRMCL NS NORFOLK	23511	Medical Technologist: Lab Tech	644	28,625	$62,371	
BRCL S OCEA	23460	Diagnostic Radiologic Technologist	647	28,625	$50,991	
BRMCL B LC	23521	Medical Technologist: Nuc Med	644	28,625	$62,371	
BRMCL B LC	23521	Medical Technician	645	28,625	$45,886	
BRMCL B LC	23521	Medical Technician	645	28,625	$45,886	
BRMCL B LC	23521	Medical Technician	645	28,625	$45,886	
BRMCL B LC	23521	Medical Technician	645	28,625	$45,886	
BRMCL B LC	23521	Medical Technologist: Nuc Med	644	28,625	$62,371	
BRMCL B LC	23521	Medical Technician	645	28,625	$45,886	
BRMCL B LC	23521	Medical Technician	645	28,625	$45,886	
BRMCL B LC	23521	Medical Technologist: Lab Tech	644	28,625	$62,371	
BRMCL B LC	23521	Medical Technologist: Lab Tech	644	28,625	$62,371	
BRMCL B LC	23521	Pharmacy Technician	661	28,625	$41,164	
BRMCL B LC	23521	Pharmacy Technician	661	28,625	$41,164	
BRMCL B LC	23521	Diagnostic Radiologic Technologist	647	28,625	$50,991	
BRMCL S MIRAMA	92145	Pharmacy Technician	661	28,625	$43,852	
BRMDCL S WHIFD	32570	Medical Technician	645	28,625	$45,886	
BRMDCL S WHIFD	32570	Pharmacy Technician	661	28,625	$41,164	
BRMDCL S WHIFD	32570	Corrective Therapist	635	28,625	$68,686	
BRMCL WNY DC	20374	Diagnostic Radiologic Technologist	647	28,625	$53,530	
BRMCL NRL WASH	20375	Diagnostic Radiologic Technologist	647	28,625	$53,530	
NBHCL MAYPORT FL	32228	Medical Technologist: Lab Tech	644	28,625	$62,371	
NBHCL MAYPORT FL	32228	Pharmacy Technician	661	28,625	$41,164	

NNMC BETHESDA	20889	Corrective Therapist	635	28,625	$72,107	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NH LEMOORE	93246	Pharmacy Technician	661	28,625	$41,164	
BRMEDCL N BRSWK	4011	Medical Technician	645	28,625	$45,886	
BRMEDCL N BRSWK	4011	Medical Technician	645	28,625	$45,886	
BMEDCL S WILGR	19090	Pharmacy Technician	661	28,625	$43,342	
BMEDCL S WILGR	19090	Medical Technician	645	28,625	$48,313	
BRMDCL S KINGS	78363	Medical Technician	645	28,625	$45,886	
BRMDCL S KINGS	78363	Medical Technician	645	28,625	$45,886	
BRCL S OCEA	23460	Medical Technician	645	28,625	$45,886	
PHBASE BDENC NOR	23460	Dental Assistant	681	28,625	$41,164	
SHPYD BDENCL NOR	23708	Dental Assistant	681	28,625	$41,164	
NDCLBR DAM NECK	23461	Dental Assistant	681	28,625	$41,164	
WPSTA BDENCL NOR	23691	Dental Assistant	681	28,625	$41,164	
NDCLBR S OCEAN	23460	Dental Assistant	681	28,625	$41,164	
NDCLBR S OCEAN	23460	Dental Assistant	681	28,625	$41,164	
NBHCL ALBANY GA	31704	Medical Technician	645	28,625	$45,886	
NBHCL ALBANY GA	31704	Medical Technician	645	28,625	$45,886	
NBMCL WPS EARLE	7722	Medical Technician	645	28,625	$48,313	
NBMCL WPS EARLE	7722	Medical Technician	645	28,625	$48,313	
NBMCL WPS EARLE	7722	Medical Technician	645	28,625	$48,313	
BRMCL F DC	20374	Diagnostic Radiologic Technologist	647	28,625	$53,530	
NDCLBR S LEMOO	93246	Dental Assistant	681	28,625	$41,164	
NDCLBR S N ISL	92135	Dental Assistant	681	28,625	$43,852	
NDCLBR S N ISL	92135	Dental Assistant	681	28,625	$43,852	
NDCLBR S N ISL	92135	Dental Assistant	681	28,625	$43,852	
BRDCL MCCDC QUAN	22134	Dental Assistant	681	28,625	$43,214	
BRDCL MCCDC QUAN	22134	Dental Assistant	681	28,625	$43,214	
BRDCL US AN	21402	Dental Assistant	681	28,625	$43,214	
BRDCL US AN	21402	Dental Assistant	681	28,625	$43,214	
BRDCL US AN	21402	Dental Assistant	681	28,625	$43,214	
BRDCL US AN	21402	Dental Assistant	681	28,625	$43,214	
BRDCL S PAX	20670	Dental Assistant	681	28,625	$43,214	
BRDCL NSWC DLGN	22448	Dental Assistant	681	28,625	$43,214	
NHBRCL VICP	17015	Medical Technician	645	28,625	$48,313	
NDCLBR S WHITI	32570	Dental Assistant	681	28,625	$41,164	
NDCLBR S WHIDB	98277	Dental Assistant	681	28,625	$43,252	

NDCLBR S WHIDB	98277	Dental Assistant	681	28,625	$43,252	
BRDCL EVERETT WA	98207	Dental Assistant	681	28,625	$43,252	
BRMDCL SMERIDI	39309	Medical Technician	645	28,625	$45,886	
BRMDCL SMERIDI	39309	Medical Technician	645	28,625	$45,886	
BRMDCL SMERIDI	39309	Medical Technician	645	28,625	$45,886	
BRMDCL SMERIDI	39309	Pharmacy Technician	661	28,625	$41,164	
BRMDCL SMERIDI	39309	Medical Technician	645	28,625	$45,886	
BRMDCL SMERIDI	39309	Pharmacy Technician	661	28,625	$41,164	
NHBRCL NSCS ATHE	30606	Medical Technician	645	28,625	$46,938	
BRMDCL CBC GLFPT	39501	Medical Technologist: Lab Tech	644	28,625	$62,371	
NH BR CL PANCITY	32407	Medical Technician	645	28,625	$45,886	
BRDNCL S MFS	38054	Dental Assistant	681	28,625	$41,164	
NDCBR ALBANY GA	31704	Dental Assistant	681	28,625	$41,164	
NDCLBR CBC GFPT	39501	Dental Assistant	681	28,625	$41,164	
NDCLBR S MRID	39309	Dental Assistant	681	28,625	$41,164	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDCLBR NOLA	70152	Dental Assistant	681	28,625	$41,164	
NDCLBR NOLA	70152	Dental Assistant	681	28,625	$41,164	
NDCLBR S DALLA	78233	Dental Assistant	681	28,625	$41,164	
NDC SE JAX FL	32214	Dental Assistant	681	28,625	$41,164	
NDCLBR NU SCO NY	10006	Dental Assistant	681	28,625	$41,164	
BRMCL NS SDGO	92133	Pharmacy Technician	661	28,625	$43,852	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
BRMEDCL N BRSWK	4011	Medical Technician	645	28,625	$45,886	
BRDENCLINIC SBGA	31547	Dental Assistant	681	28,625	$41,164	
BRDENCLINIC SBGA	31547	Dental Assistant	681	28,625	$41,164	
BRDENCLINIC SBGA	31547	Dental Assistant	681	28,625	$41,164	
BDC WPNSTA CHASN	29445	Dental Assistant	681	28,625	$41,164	
NDCBR S ATLANT	30060	Dental Assistant	681	28,625	$42,107	
NDC BR PASCAGOUL	39568	Dental Assistant	681	28,625	$41,164	
NDC BR INGLESIDE	78363	Dental Assistant	681	28,625	$41,164	
NDC BR INGLESIDE	78363	Dental Assistant	681	28,625	$41,164	
BMC NSA MEMPHIS	38054	Medical Technician	645	28,625	$45,886	
BMC NSA MEMPHIS	38054	Medical Technician	645	28,625	$45,886	
NMC SDGO CA	92140	Corrective Therapist	635	28,625	$73,170	
BMC NSA MEMPHIS	38054	Medical Technologist: Lab Tech	644	28,625	$62,371	
NH BEAUFORT	29902	Medical Equip Repair (WG)	4805	28,625	$75,465	
NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	
NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	
NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	
NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	
NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	

NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	
NHOSP GLAKES	60088	Medical Technologist: Lab Tech	644	28,625	$66,397	
NH BEAUFORT	29902	Pharmacy Technician	661	28,625	$41,164	
NH BEAUFORT	29902	Pharmacy Technician	661	28,625	$41,164	
MCRD PARRIS ISLD	29902	Medical Technical Asst: Optician	650	28,625	$62,371	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Corrective Therapist Cast Rm Tech	635	28,625	$73,434	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Pharmacy Technician	661	28,625	$44,009	
CC GROTON CT	6349	Pharmacy Technician	661	28,625	$44,009	
CC GROTON CT	6349	Pharmacy Technician	661	28,625	$44,009	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
CC GROTON CT	6349	Medical Technician	645	28,625	$49,058	
VBRDENCL PENT	20310	Dental Assistant	681	28,625	$43,214	
NDC G COAST PNSC	32508	Dental Assistant	681	28,625	$41,164	
NDC P ISL SC	29902	Dental Assistant	681	28,625	$41,164	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC SE JAX FL	32214	Dental Laboratory Aid and Technician	683	28,625	$56,472	
NDC CP PENDLETON	92055	Dental Assistant	681	28,625	$43,852	
NDC CP PENDLETON	92055	Dental Assistant	681	28,625	$43,852	
NDC CP PENDLETON	92055	Dental Assistant	681	28,625	$43,852	
NDC CP PENDLETON	92055	Dental Assistant	681	28,625	$43,852	
NDC CP PENDLETON	92055	Dental Assistant	681	28,625	$43,852	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	

NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Laboratory Aid and Technician	683	28,625	$56,472	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Laboratory Aid and Technician	683	28,625	$56,472	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
OPHTHALSUPPTRACT	23691	Medical Technical Asst: Optician	650	28,625	$62,371	
NOSTRA DET MAYPT	32228	Medical Technical Asst: Optician	650	28,625	$62,371	
ARMFORINST PATHO	20306	Medical Technologist: Histo Tech	644	28,625	$65,477	
ARMFORINST PATHO	20306	Medical Technologist: Histo Tech	644	28,625	$65,477	
VHOSP JAX FL	32214	Medical Technologist: Aero Physio	644	28,625	$62,371	
NH PENSACOLA FL	32508	Medical Technician	645	28,625	$45,886	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
NHOSP GLAKES	60088	Medical Technician	645	28,625	$48,847	
BRMCL S FALLON	89406	Corrective Therapist	635	28,625	$68,686	
VHOSP JAX FL	32214	Pharmacy Technician	661	28,625	$41,164	
VHOSP JAX FL	32214	Pharmacy Technician	661	28,625	$41,164	
NHBRCL EVERETT	98207	Pharmacy Technician	661	28,625	$43,252	
NHBRCL EVERETT	98207	Pharmacy Technician	661	28,625	$43,252	
NHBRCL EVERETT	98207	Diagnostic Radiologic Technologist	647	28,625	$53,578	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDCLBR S FALLO	89406	Dental Assistant	681	28,625	$41,164	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	

NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
NDC SW SAN DIEGO	92140	Dental Assistant	681	28,625	$43,852	
BRDCL WNY DC	20374	Dental Assistant	681	28,625	$43,214	
NDC NE NEWPORT	2840	Dental Laboratory Aid and Technician	683	28,625	$60,493	
NH BEAUFORT	29902	Medical Technician	645	28,625	$45,886	
NH CHERRY POINT	28533	Medical Technologist: Lab Tech	644	28,625	$63,928	
NH CHERRY POINT	28533	Pharmacy Technician	661	28,625	$42,192	
NH CHERRY POINT	28533	Pharmacy Technician	661	28,625	$42,192	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Corrective Therapist Cast Rm Tech	635	28,625	$72,172	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Pharmacy Technician	661	28,625	$43,252	
NH OAK HARBOR WA	98277	Pharmacy Technician	661	28,625	$43,252	
NH OAK HARBOR WA	98277	Pharmacy Technician	661	28,625	$43,252	
NH OAK HARBOR WA	98277	Diagnostic Radiologic Technologist	647	28,625	$53,578	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	

NMC PATUXENT	20670	Psychology Aid and Technician	181	28,625	$53,530	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technician	645	28,625	$48,171	
NMC PATUXENT	20670	Medical Technologist: Lab Tech	644	28,625	$65,477	
NMC PATUXENT	20670	Medical Technologist: Lab Tech	644	28,625	$65,477	
NMC PATUXENT	20670	Pharmacy Technician	661	28,625	$43,214	
NMC PATUXENT	20670	Pharmacy Technician	661	28,625	$43,214	
CC P HUENEME	93043	Pharmacy Technician	661	28,625	$44,471	
NH PENSACOLA FL	32508	Pharmacy Technician	661	28,625	$41,164	
CC NEW ORLNS	70152	Medical Technician	645	28,625	$45,886	
CC NEW ORLNS	70152	Medical Technician	645	28,625	$45,886	
CC NEW ORLNS	70152	Pharmacy Technician	661	28,625	$41,164	
BRCL S OCEA	23460	Medical Technician	645	28,625	$45,886	
NH CHARLESTON SC	29445	Medical Technician	645	28,625	$45,886	
NH CHARLESTON SC	29445	Medical Technician	645	28,625	$45,886	
NH CHARLESTON SC	29445	Medical Technician	645	28,625	$45,886	
NH CHARLESTON SC	29445	Medical Technician	645	28,625	$45,886	
NH OAK HARBOR WA	98277	Corrective Therapist	635	28,625	$72,172	
NH CHARLESTON SC	29445	Corrective Therapist Cast Rm Tech	635	28,625	$68,686	
NH CHARLESTON SC	29445	Pharmacy Technician	661	28,625	$41,164	
NH CHARLESTON SC	29445	Pharmacy Technician	661	28,625	$41,164	
NH CHARLESTON SC	29445	Diagnostic Radiologic Technologist	647	28,625	$50,991	
CC NEWPT RI	2840	Psychology Aid and Technician	181	28,625	$54,621	
CC NEWPT RI	2840	Medical Technologist: Ocular Tech	644	28,625	$73,577	
CC NEWPT RI	2840	Medical Technologist: Lab Tech	644	28,625	$66,812	
CC NEWPT RI	2840	Pharmacy Technician	661	28,625	$44,095	
CC NEWPT RI	2840	Pharmacy Technician	661	28,625	$44,095	
NH CORPUS CHRIST	78419	Medical Equip Repair (WG)	4805	28,625	$75,465	
NBHCL KINGS BAY	31547	Medical Technician	645	28,625	$45,886	
NHBRCL PASCAGOUL	39567	Medical Technician	645	28,625	$45,886	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NH OAK HARBOR WA	98277	Medical Technician	645	28,625	$48,213	
NMEDCEN PTSMOUTH	23708	Medical Technologist: Hemo/aph	644	28,625	$68,686	
VHOSP JAX FL	32214	Medical Technical Assistant: Rad Hlth	650	28,625	$62,371	
NBHCL MAYPORT FL	32228	Medical Technical Assistant: Rad Hlth	650	28,625	$62,371	

NH CP LEJEUNE NC	28542	Medical Technician	645	28,625	$47,031	
NH CP LEJEUNE NC	28542	Medical Technician	645	28,625	$47,031	
NH CP LEJEUNE NC	28542	Medical Technician	645	28,625	$47,031	
NH CP PENDLETON	92055	Medical Equip Repair (WG)	4805	28,625	$80,392	
NH CP PENDLETON	92055	Pharmacy Technician	661	28,625	$43,852	
NH CP PENDLETON	92055	Pharmacy Technician	661	28,625	$43,852	
NH CP PENDLETON	92055	Pharmacy Technician	661	28,625	$43,852	
NH CP PENDLETON	92055	Medical Technologist: Lab Tech	644	28,625	$66,442	
NH BREMERTON WA	98310	Medical Technologist: Lab Tech	644	28,625	$65,535	
NH BREMERTON WA	98310	Pharmacy Technician	661	28,625	$43,252	
NH BREMERTON WA	98310	Pharmacy Technician	661	28,625	$43,252	
NH BREMERTON WA	98310	Diagnostic Radiologic Technologist	647	28,625	$53,578	
NMC HAWAII HI	96860	Medical Technical Asst: Derm Tech	650	28,625	$62,371	
NMC HAWAII HI	96860	Medical Technical Asst: Optician	650	28,625	$62,371	
NMC HAWAII HI	96860	Medical Technical Asst: Optician	650	28,625	$62,371	
NMC HAWAII HI	96860	Medical Technical Asst: Optician	650	28,625	$62,371	
NMC HAWAII HI	96860	Pharmacy Technician	661	28,625	$41,164	
NMC HAWAII HI	96860	Diagnostic Radiologic Technologist	647	28,625	$50,991	
NMC HAWAII HI	96860	Pharmacy Technician	661	28,625	$41,164	
NMC HAWAII HI	96860	Pharmacy Technician	661	28,625	$41,164	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
BDCL WPNC CHLK	93555	Dental Assistant	681	28,625	$41,164	
NDC CP LEJEUNE	28547	Dental Assistant	681	28,625	$42,192	
NDC P ISL SC	29902	Dental Assistant	681	28,625	$41,164	
NDC P ISL SC	29902	Dental Assistant	681	28,625	$41,164	
NDC P ISL SC	29902	Dental Assistant	681	28,625	$41,164	
NDC P ISL SC	29902	Dental Assistant	681	28,625	$41,164	
NDC G COAST PNSC	32508	Dental Assistant	681	28,625	$41,164	
NDC G COAST PNSC	32508	Dental Assistant	681	28,625	$41,164	
NDC NW BREM	98311	Dental Assistant	681	28,625	$43,252	
NDC NW BREM	98311	Dental Assistant	681	28,625	$43,252	
NDC SE JAX FL	32214	Dental Assistant	681	28,625	$41,164	

NDC SE JAX FL	32214	Dental Assistant	681	28,625	$41,164	
NDC SE JAX FL	32214	Dental Assistant	681	28,625	$41,164	
BDC WPNSTA CHASN	29445	Dental Assistant	681	28,625	$41,164	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
NDC GREAT LAKES	60088	Dental Assistant	681	28,625	$43,821	
BMC SJRB FW T	76127	Medical Technician	645	28,625	$45,886	
VMEDADMINU	98431	Medical Technician	645	28,625	$48,213	
NBHCL KINGS BAY	31547	Medical Technical Assistant: Rad Hlth	650	28,625	$62,371	
NDC CP LEJEUNE	28547	Dental Assistant	681	28,625	$42,192	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDCLBR NOLA	70152	Dental Assistant	681	28,625	$41,164	
BRDCL MCCDC QUAN	22134	Dental Assistant	681	28,625	$43,214	
NDC G COAST PNSC	32508	Dental Assistant	681	28,625	$41,164	
NMC HAWAII HI	96860	Corrective Therapist	635	28,625	$68,686	
NDC PEARL HARBOR	96860	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC MLANT NORVA	23521	Dental Assistant	681	28,625	$41,164	
NDC P ISL SC	29902	Dental Officer	680	61,975	$149,508	
NDC P ISL SC	29902	Dental Officer	680	61,975	$149,508	
NDC P ISL SC	29902	Dental Assistant	681	28,625	$41,164	
NDC NW BREM	98311	Dental Assistant	681	28,625	$43,252	
NDCLBR S WHIDB	98277	Dental Assistant	681	28,625	$43,252	
NMC SDGO CA	92140	Medical Technologist: Histo Tech	644	28,625	$66,442	
NMC PATUXENT	20670	Corrective Therapist	635	28,625	$72,107	
NMC LONDON UK	99999	PHARMACIST		64,315		
NMC LONDON UK	99999	HEALTH SYSTEM SPECIALIST		64,315		
NBHCL NSO LAMAD	99999	DENTAL OFFICER: COMPRE		74,676		
NH SIGONELLA	99999	HEALTH SYSTEM SPECIALIST	671	50,857		
NBHCL NSO LAMAD	99999	MEDICAL OFFICER: FAM PHYS		84,005		
NBHCL NSO LAMAD	99999	NURSE: AMB CARE		74,676		
NBHCL NSO LAMAD	99999	NURSE: AMB CARE		64,315		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: FAM PHYS		84,005		
NMC LONDON UK	99999	DENTAL OFFICER: COMPRE		96,691		
NMC LONDON UK	99999	DENTAL OFFICER: COMPRE		84,005		
NMC LONDON UK	99999	HEALTH SYSTEM SPECIALIST		74,676		
NMC LONDON UK	99999	MEDICAL OFFICER: FLT SGN		84,005		
NMC LONDON UK	99999	MEDICAL OFFICER: FAM PHYS		84,005		
NMC LONDON UK	99999	NURSE: EMER/TRAUMA		64,315		
NH KEFLAVIK IC	99999	DENTAL OFFICER: COMPRE		96,691		
NH KEFLAVIK IC	99999	DENTAL OFFICER: COMPRE		74,676		
NH KEFLAVIK IC	99999	DENTAL OFFICER: ORAL MAX SGN		64,315		

NMC BR ST MAWGAN	99999	NURSE: MED/SURG		64,315		
S NH TG P	32512	GME		74,676		
S NH TG P	32512	GME		74,676		
S NH TG P	32512	GME		74,676		
S NH TG P	32512	GME		64,315		
S NH TG P	32512	GME		64,315		
S NH TG P	32512	GME		64,315		
S NH TG P	32512	GME		64,315		
NH KEFLAVIK IC	99999	HEALTH SYSTEM SPECIALIST		74,676		
NH KEFLAVIK IC	99999	ADMIN		74,676		
NBHCL NSO LAMAD	99999	HEALTH SYSTEM SPECIALIST		74,676		
NH KEFLAVIK IC	99999	TRAINING OFFICER		50,857		
NH KEFLAVIK IC	99999	HEALTH SYSTEM SPECIALIST: MIS		64,315		
NH KEFLAVIK IC	99999	INDUSTRIAL HYGIENE		50,857		
NH KEFLAVIK IC	99999	HEALTH SYSTEM SPECIALIST		96,691		
NH KEFLAVIK IC	99999	HEALTH SYSTEM SPECIALIST		84,005		
NH KEFLAVIK IC	99999	COMPTROLLER		64,315		
NH KEFLAVIK IC	99999	NURSE: MAT/CHILD		50,857		
NH KEFLAVIK IC	99999	NURSE: HEALTH SYSTEM SPECIALIST		96,691		
NH KEFLAVIK IC	99999	NURSE: MAT/CHILD		74,676		
NH KEFLAVIK IC	99999	NURSE: PEDS		41,935		
NH KEFLAVIK IC	99999	NURSE		41,935		
NH KEFLAVIK IC	99999	NURSE		41,935		
NH KEFLAVIK IC	99999	NURSE: MAT/CHILD		41,935		
NH KEFLAVIK IC	99999	NURSE: MAT/CHILD		41,935		
NH KEFLAVIK IC	99999	NURSE: PERIOP		64,315		
NH KEFLAVIK IC	99999	NURSE: PERIOP		64,315		
NH KEFLAVIK IC	99999	NURSE: MED/SURG		64,315		
NH KEFLAVIK IC	99999	NURSE: ANESTH		50,857		
NH KEFLAVIK IC	99999	PYSCHOLOGIST		64,315		
NH KEFLAVIK IC	99999	NURSE: EMER/TRAUMA		50,857		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: PEDIATRICIAN		64,315		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: FAM PHYS		74,676		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: FAM PHYS		64,315		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: FAM PHYS		74,676		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: FAM PHYS		64,315		
NH KEFLAVIK IC	99999	PYSCHOLOGIST		64,315		
NH KEFLAVIK IC	99999	NURSE: MED/SURG		84,005		
NH KEFLAVIK IC	99999	MEDICAL OFFICER: OB-GYN		84,005		
NH KEFLAVIK IC	99999	OPTOMETRIST		64,315		
NH KEFLAVIK IC	99999	NURSE: ANESTH		74,676		
NH KEFLAVIK IC	99999	PHARMACIST		64,315		

NH KEFLAVIK IC	99999	MEDICAL OFFICER: XRAY		74,676		
VMED SUPPMD	32214	Health Aide and Technician	640	46,236	$0	
NH KEFLAVIK IC	99999	DENTAL HYGIENE		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		39,680		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		33,922		
NBHCL NSO LAMAD	99999	DENTAL ASSISTANT		28,378		
NBHCL NSO LAMAD	99999	DENTAL ASSISTANT		28,378		
NH SIGONELLA	99999	MEDICAL TECHNICIAN	645	24,144		
NH SIGONELLA	99999	MEDICAL TECHNICIAN		24,144		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		51,152		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		33,922		
NBHCL NSO LAMAD	99999	PHARACY TECH		28,378		
NBHCL NSO LAMAD	99999	DIAG RAD TECH		33,922		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN: LAB TECH		28,378		
NBHCL NSO LAMAD	99999	ENVIRO HLTH TECH: PREV MED TECH		33,922		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		33,922		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		28,378		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		28,378		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		33,922		
NMC LONDON UK	99999	DENTAL ASSISTANT		28,378		
NMC LONDON UK	99999	DENTAL ASSISTANT		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		51,152		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN: AERO MED		33,922		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	ENVIRO HLTH TECH: PREV MED TECH		39,680		
NMC LONDON UK	99999	MEDICAL TECHNICIAN: LAB TECH		33,922		
NMC LONDON UK	99999	PHARACY TECH		39,680		
NMC LONDON UK	99999	DIAG RAD TECH		39,680		
NMC BR ST MAWGAN	99999	MEDICAL TECHNOLOGIST: IDC		39,680		
NMC BR ST MAWGAN	99999	MEDICAL TECHNICIAN		45,700		
NMC BR ST MAWGAN	99999	ENVIRO HLTH TECH: PREV MED TECH		33,922		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		39,680		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		45,700		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		39,680		
NH KEFLAVIK IC	99999	DENTAL ASSISTANT		28,378		
NH KEFLAVIK IC	99999	DENTAL LAB AID AND TECH		33,922		
NH KEFLAVIK IC	99999	DENTAL ASSISTANT		24,144		

NH KEFLAVIK IC	99999	DENTAL ASSISTANT		24,144		
NH KEFLAVIK IC	99999	DENTAL ASSISTANT		24,144		
NH KEFLAVIK IC	99999	DENTAL ASSISTANT		24,144		
NMC BR ST MAWGAN	99999	MEDICAL TECHNICIAN		28,378		
NMC BR ST MAWGAN	99999	MEDICAL TECHNICIAN		39,680		
NMC BR ST MAWGAN	99999	DENTAL ASSISTANT		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		39,680		
NH SIGONELLA	99999	MEDICAL TECHNICIAN	645	24,144		
NH KEFLAVIK IC	99999	DENTAL ASSISTANT		24,144		
NH SIGONELLA	99999	MEDICAL TECHNICIAN	645	24,144		
NH SIGONELLA	99999	MEDICAL TECHNICIAN	645	24,144		
NH SIGONELLA	99999	MEDICAL TECHNICIAN	645	24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		39,680		
NMC BR ST MAWGAN	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	PSYCH AID AND TECH		24,144		
NMC BR ST MAWGAN	99999	MEDICAL TECHNICIAN		24,144		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: OPTICIAN		24,144		
NH KEFLAVIK IC	99999	CORRECTIVE THERAPIST: PT TECH		33,922		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		45,700		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		39,680		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		24,144		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		39,680		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		24,144		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	ENVIRO HLTH TECH: PREV MED TECH		39,680		
NMC BR ST MAWGAN	99999	PHARACY TECH		28,378		
NMC BR ST MAWGAN	99999	DIAG RAD TECH		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		33,922		
NMC LONDON UK	99999	DENTAL ASSISTANT		28,378		
NMC LONDON UK	99999	DENTAL ASSISTANT		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		60,215		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		

NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		28,378		
NH KEFLAVIK IC	99999	MEDICAL REPAIR TECHNICIAN		39,680		
NH KEFLAVIK IC	99999	MEDICAL REPAIR TECHNICIAN		45,700		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		39,680		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		24,144		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNOLOGIST: IDC		39,680		
NH KEFLAVIK IC	99999	PSYCH AID AND TECH		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: AERO MED		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: AERO MED		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	ENVIRO HLTH TECH: PREV MED TECH		39,680		
NH KEFLAVIK IC	99999	ENVIRO HLTH TECH: PREV MED TECH		33,922		
NH KEFLAVIK IC	99999	ENVIRO HLTH TECH: PREV MED TECH		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		33,922		

NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: SURG TECH		28,378		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		45,700		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		39,680		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		39,680		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		39,680		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: LAB TECH		28,378		
NH KEFLAVIK IC	99999	PHARACY TECH		33,922		
NH KEFLAVIK IC	99999	PHARACY TECH		33,922		
NH KEFLAVIK IC	99999	PHARACY TECH		33,922		
NH KEFLAVIK IC	99999	PHARACY TECH		33,922		
NH KEFLAVIK IC	99999	CORRECTIVE THERAPIST: PT TECH		33,922		
NH KEFLAVIK IC	99999	DIAG RAD TECH		39,680		
NH KEFLAVIK IC	99999	DIAG RAD TECH		33,922		
NH KEFLAVIK IC	99999	DIAG RAD TECH		33,922		
HCSO JAX FL/RPN	32212	Magement and Program Alysis (9/11)	343	75,552	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	60,922	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	46,236	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	40,146	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	40,146	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	40,146	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	40,146	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	28,711	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	28,711	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	28,711	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	28,711	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
VMED SUPPMD	32214	Health Aide and Technician	640	34,320	$0	
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		45,700		

NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN		39,680		
NMC BR ST MAWGAN	99999	MEDICAL OFFICER: FAM PHYS		84,005		
NBHCL NSO LAMAD	99999	MEDICAL OFFICER: FAM PHYS		74,676		
NBHCL NSO LAMAD	99999	MEDICAL TECHNICIAN: LAB TECH		33,922		
NMC LONDON UK	99999	MEDICAL TECHNICIAN		33,922		
NH KEFLAVIK IC	99999	MEDICAL TECHNICIAN: OPTICIAN		28,378		
NH KEFLAVIK IC	99999	PHYSICAL THERAPISTS		64,315		

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	CC P HUENEME	OPTICIAN	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	PHARMACY TECH	HM	E-6	$29,480.00
FY09	CC P HUENEME	PHYSICIAN ASST	230	O-4	$64,205.00
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36210/67803	HM	E-3	$29,480.00
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 07280/67803	HM	E-3	$29,480.00
FY09	CC P HUENEME	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36200/67803	HM	E-3	$29,480.00
FY09	CC P HUENEME	PHARM TECH	HM	E-5	$29,480.00
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36190/67803	HM	E-3	$29,480.00
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	CC P HUENEME	ADV X-RAY	HM	E-5	$29,480.00
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36170/67803	HM	E-3	$29,480.00
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	CC P HUENEME	ADV X-RAY	HM	E-4	$29,480.00
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	CC P HUENEME	PHARM TECH	HM	E-5	$29,480.00
FY09	S NH TG P	INTERN	210	O-3	$66,501.99
FY09	CC P HUENEME	PHARM TECH	HM	E-7	$29,480.00
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	S NH TG P	HS RES	210	O-3	$66,501.99
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 36180/67803	HM	E-3	$29,480.00
FY09	NH OAK HARBOR WA	CORPSMAN	HM	E-4	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HISTO TECH	HM	E-4	$29,480.00
FY09	NH OAK HARBOR WA	CORPSMAN/ADMIN ASST	HM	E-4	$29,480.00
FY09	NDC G COAST PNSC	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NDC G COAST PNSC	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC G COAST PNSC	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	MED LAB TECH	HM	E-4	$29,480.00
FY09	NH OAK HARBOR WA	CORPSMAN/ADMIN ASST	HM	E-4	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NH PCOLA FH PC D	RES THER TECH/MOB TO 19947/40230	HM	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NH PENSACOLA FL	OT TECH	HM	E-5	$29,480.00
FY09	NH BR CL PANCITY	PHARM TECH	HM	E-5	$29,480.00
FY09	NH BR CL PANCITY	MED LAB TECH ADV	HM	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	NH OAK HARBOR WA	BASIC X-RAY	HM	E-3	$29,480.00
FY09	BRMDCL S WHIFD	PHARMACY TECH	HM	E-5	$29,480.00
FY09	BRMDCL S WHIFD	MED LAB TECH	HM	E-6	$29,480.00
FY09	BRMDCL S WHIFD	HOSPITAL CORPSMAN	HM	E-6	$29,480.00
FY09	BRMDCL S WHIFD	CORPSMAN	HM	E-5	$29,480.00
FY09	BRMDCL S WHIFD	CORPSMAN	HM	E-4	$29,480.00
FY09	BRMDCL S WHIFD	CORPSMAN	HM	E-4	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NDC G COAST PNSC	DENTAL TECH	DT	E-4	$29,480.00
FY09	NBHCL ALBANY GA	CORPSMAN	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	CYTO TECH	HM	E-5	$29,480.00
FY09	BDCL WPNC CHLK	DENTALMAN	DT	E-3	$29,480.00
FY09	NMC SDGO CA	PT TECH	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NH PENSACOLA FL	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NMC SDGO CA	PT TECH	HM	E-5	$29,480.00
FY09	NMC SDGO CA	PT TECH	HM	E-6	$29,480.00
FY09	NMC SD FH BREM D	CORPSMAN/CAST TECH/ MOB TO 27846/40240	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	STAF NRS	290	O-3	$64,205.00
FY09	NH PCOLA FH PC D	OCULAR TECH/MOB TO 29325/40230	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	BASIC X-RAY	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	ENT TECH	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	HEMO/APHERESIS	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	HISTO TECH	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH PCOLA FH PC D	ENT TECH/MOB TO 30435/40230	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	ENT TECH	HM	E-4	$29,480.00
FY09	NH PENSACOLA FL	ENT TECH	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HEMO/APHERESIS	HM	E-4	$29,480.00
FY09	NH PCOLA FH PC D	SAR TECH/HM/MOB TO 11234/40230	HM	E-5	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NH PENSACOLA FL	OPTICIAN	HM	E-5	$29,480.00
FY09	NH PENSACOLA FL	END TECH	HM	E-4	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NH PENSACOLA FL	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NDCLBR S LEMOO	DENTAL ASST SS	DT	E-3	$29,480.00
FY09	NDC GREAT LAKES	ORAL MAX SGN	220	O-3	$64,205.00
FY09	NDC GREAT LAKES	ENDODONTIST	220	O-5	$64,205.00
FY09	NH CP PENDLETON	INDUS HYG OFF	230	O-3	$64,205.00
FY09	NH OAK HARBOR WA	STAF NRS	290	O-3	$64,205.00
FY09	NDC GREAT LAKES	COMPRE DENT	220	O-4	$64,205.00
FY09	NH CP PENDLETON	END TECH	HM	E-5	$29,480.00
FY09	NH OAK HARBOR WA	STAF NRS	290	O-3	$64,205.00
FY09	NH CP PENDLETON	MED LAB TECH ADV	HM	E-5	$29,480.00
FY09	NH CP PENDLETON	NUC MED TECH	HM	E-5	$29,480.00
FY09	NH CP PENDLETON	PHARM TECH	HM	E-3	$29,480.00
FY09	NH OAK HARBOR WA	STAF NRS	290	O-3	$64,205.00
FY09	NH CP PENDLETON	PHARM TECH	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CP PENDLETON	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NHOSP GLAKES	ADV X-RAY	HM	E-3	$29,480.00
FY09	NDCLBR S LEMOO	COMPRE DENT	220	O-5	$64,205.00
FY09	NH LEMOORE	OBSTR-GYN	210	O-3	$64,205.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	DENT LAB BASIC	DT	E-5	$29,480.00
FY09	NH LEMOORE	OBSTR-GYN	210	O-4	$64,205.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH LEMOORE	OPTICIAN	HM	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTALMAN	DT	E-3	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH LEMOORE	CORPSMAN	HM	E-4	$29,480.00
FY09	NBHCL KINGS BAY	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH OAK HARBOR WA	SAR TECH	HM	E-4	$29,480.00
FY09	NH OAK HARBOR WA	STAFF NRS/DIV OFF	290	O-3	$64,205.00
FY09	BRMCL YUMA	MED LAB TECH ADV	HM	E-5	$29,480.00
FY09	NH OAK HARBOR WA	PHYSICIAN ASST	230	O-2	$64,205.00
FY09	NDCLBR MCLSB BAR	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC CP PENDLETON	DENTAL TECH	DT	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23525/67649	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23510/67649	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 22720/67648	HM	E-4	$29,480.00
FY09	NDC CP PENDLETON	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC CP PENDLETON	DENTALMAN	DT	E-3	$29,480.00
FY09	NH OAK HARBOR WA	PHARM TECH	HM	E-4	$29,480.00
FY09	NDC CP PENDLETON	DENTALMAN	DT	E-3	$29,480.00
FY09	NH OAK HARBOR WA	STAF NRS/PEDS	290	O-3	$64,205.00
FY09	NHOSP GLAKES	OPTICIAN	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	ADV X-RAY	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	CV TECH	HM	E-5	$29,480.00
FY09	NHOSP GLAKES	BIOMED PHOTO	HM	E-6	$29,480.00
FY09	NHOSP GLAKES	PEDIATRICIAN/(C)	210	O-4	$64,205.00
FY09	NDC CP PENDLETON	DENTALMAN (6N)	DT	E-3	$29,480.00
FY09	NHOSP GLAKES	BASIC BMET	HM	E-4	$29,480.00
FY09	NDC CP PENDLETON	DENT LAB TECH BASIC	DT	E-5	$29,480.00
FY09	NHOSP GLAKES	BASIC X-RAY	HM	E-4	$29,480.00
FY09	NH CP PENDLETON	DENT LAB TECH BASIC	DT	E-6	$29,480.00
FY09	NHOSP GLAKES	BASIC X-RAY	HM	E-3	$29,480.00
FY09	NDC CP PENDLETON	OPERAT DENT	220	O-5	$64,205.00
FY09	NHOSP GLAKES	ADV X-RAY	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	ADV X-RAY	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 21820/67647	HM	E-4	$29,480.00
FY09	BRMCL ATLANTA GA	CORPSMAN	HM	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCLBR S WHIDB	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL KINGS BAY	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL KINGS BAY	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCLBR S N ISL	DENTAL ASST	DT	E-3	$29,480.00
FY09	NBHCL KINGS BAY	RAD HLTH TECH	HM	E-5	$29,480.00
FY09	BRDENCLINIC SBGA	DENTALMAN / ASST	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCLBR S N ISL	DENTAL ASST	DT	E-4	$29,480.00
FY09	NDCLBR S N ISL	DENTAL TECH	DT	E-4	$29,480.00
FY09	NH LEMOORE	LAB TECH ADV	HM	E-3	$29,480.00
FY09	BRMCL ATLANTA GA	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRMCL ATLANTA GA	ADV X-RAY	HM	E-5	$29,480.00
FY09	BRMCL NSY NORVA	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCBR S ATLANT	DENTAL TECH	DT	E-5	$29,480.00
FY09	NHBRCL NSCS ATHE	CORPSMAN	HM	E-4	$29,480.00
FY09	BDCL S PMUGU	DENTALMAN	DT	E-3	$29,480.00
FY09	BDCL S PMUGU	COMPRE DENT	220	O-4	$64,205.00
FY09	CC P HUENEME	PT TECH	HM	E-5	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 01215/67803	HM	E-3	$29,480.00
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 01220/67803	HM	E-3	$29,480.00
FY09	NBHCL ALBANY GA	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NMC PT MC U DET	HOSPITALMAN/ FMF/ MOB TO 01225/67803	HM	E-3	$29,480.00
FY09	BDCL CBC PORHUE	DENTAL ASST	DT	E-3	$29,480.00
FY09	BRDENCLINIC SBGA	DENTAL TECH	DT	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH OAK HARBOR WA	HOSPITALMAN/ADMIN	HM	E-3	$29,480.00
FY09	NMADU MONTEREY	GEN SVC	HM	E-4	$29,480.00
FY09	NMADU MONTEREY	HOSPITAL CORPSMAN	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENT ASST	DT	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTALMAN	DT	E-3	$29,480.00
FY09	NMADU MONTEREY	HOSPITAL CORPSMAN	HM	E-6	$29,480.00
FY09	NMADU MONTEREY	PREV MED TECH	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTAL TECH	DT	E-5	$29,480.00
FY09	NDCLBR S N ISL	DENTAL ASST	DT	E-3	$29,480.00
FY09	NDC GREAT LAKES	DENTAL TECH	DT	E-5	$29,480.00
FY09	NDC GREAT LAKES	DENTAL TECH	DT	E-4	$29,480.00
FY09	NHOSP GLAKES	DENTAL TECH	DT	E-4	$29,480.00
FY09	BDCL CBC PORHUE	DENTAL TECH	DT	E-4	$29,480.00
FY09	NDC GREAT LAKES	DENTALMAN	DT	E-3	$29,480.00
FY09	BRCL S OCEA	CORPSMAN	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-6	$29,480.00
FY09	NH BREMERTON WA	BASIC X-RAY	HM	E-6	$29,480.00
FY09	BRDCL WNY DC	DENTAL TECH	DT	E-4	$29,480.00
FY09	NMC SDGO CA	ENT TECH	HM	E-4	$29,480.00
FY09	BRDCL WNY DC	DENT TECH/ADDU TO 54015/35753	DT	E-4	$29,480.00
FY09	NMC SDGO CA	ENT TECH	HM	E-4	$29,480.00
FY09	CC GROTON CT	PSYCH TECH	HM	E-4	$29,480.00
FY09	NMC SDGO CA	HEMO/APHERESIS	HM	E-4	$29,480.00
FY09	BRMCL B CORO	LAB TECH	HM	E-3	$29,480.00
FY09	NDC NW BREM	DENT GP	220	O-4	$64,205.00
FY09	NDC NW BREM	DENTALMAN/PROS	DT	E-3	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-7	$29,480.00
FY09	NMC SDGO CA	CYTO TECH	HM	E-4	$29,480.00
FY09	BRMCL MCRD SDGO	SURFACE IDC	HM	E-5	$29,480.00
FY09	VBRDENCL PENT	DENTALMAN	DT	E-3	$29,480.00
FY09	BRMCL MCRD SDGO	SURFACE IDC	HM	E-5	$29,480.00
FY09	BRMCL MCRD SDGO	SURFACE IDC	HM	E-5	$29,480.00
FY09	BRMCL MCRD SDGO	SURFACE IDC	HM	E-6	$29,480.00
FY09	NMC SDGO CA	OCCULAR TECH	HM	E-3	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	CC GROTON CT	PHARM TECH	HM	E-4	$29,480.00
FY09	NMC SDGO CA	OCULAR TECH	HM	E-4	$29,480.00
FY09	NMC SDGO CA	OCULAR TECH	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-6	$29,480.00
FY09	NMC SDGO CA	UROLOGY TECH	HM	E-6	$29,480.00
FY09	CC GROTON CT	PHARM TECH	HM	E-3	$29,480.00
FY09	BRCL S OCEA	SAR TECH	HM	E-4	$29,480.00
FY09	NDC SE JAX FL	DENTAL TECH	DT	E-4	$29,480.00
FY09	NMC SDGO CA	NUC MED TECH	HM	E-5	$29,480.00
FY09	NMC SDGO CA	OPTICIAN	HM	E-5	$29,480.00
FY09	NBHCL KY WEST FL	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NH BREMERTON WA	RAD HLTH TECH	HM	E-5	$29,480.00
FY09	BRMCL F DC	SURFACE IDC	HM	E-5	$29,480.00
FY09	NMC SDGO CA	DERM TECH	HM	E-4	$29,480.00
FY09	ARMFORINST PATHO	HISTO TECH	HM	E-5	$29,480.00
FY09	NH BREMERTON WA	CV TECH	HM	E-4	$29,480.00
FY09	PHBASE BDENC NOR	DENT TECH	DT	E-4	$29,480.00
FY09	NMC SDGO CA	OCULAR TECH	HM	E-6	$29,480.00
FY09	BRMCL F DC	HOSPITAL CORPSMAN/EDUC & TRA	HM	E-5	$29,480.00
FY09	BRMCL NRL WASH	CORPSMAN/MED REC	HM	E-5	$29,480.00
FY09	BRMCL F DC	CORPSMAN	HM	E-6	$29,480.00
FY09	NMC SDGO CA	OPTICIAN	HM	E-3	$29,480.00
FY09	NMC SDGO CA	CYTO TECH	HM	E-5	$29,480.00
FY09	NDCLBR S OCEAN	DENT TECH	DT	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-6	$29,480.00
FY09	BRMCL WNY DC	OPTICIAN	HM	E-4	$29,480.00
FY09	PHBASE BDENC NOR	DENT LAB TECH BASIC	DT	E-4	$29,480.00
FY09	NMC SDGO CA	OPTICIAN	HM	E-5	$29,480.00
FY09	NMC SDGO CA	OPTICIAN	HM	E-6	$29,480.00
FY09	BRDCL WNY DC	COMPRE DENT	220	O-5	$64,205.00
FY09	NMC SDGO CA	OPTICIAN	HM	E-7	$29,480.00
FY09	BRDCL WNY DC	DENTALMAN	DT	E-3	$29,480.00
FY09	BRDCL WNY DC	DENTALMAN	DT	E-3	$29,480.00
FY09	VBRDENCL PENT	DENTALMAN	DT	E-3	$29,480.00
FY09	PHBASE BDENC NOR	PERIODONTIST	220	O-6	$64,205.00
FY09	NMC SDGO CA	CORPSMAN	HM	E-4	$29,480.00
FY09	BRMCL S MIRAMA	SAR TECH	HM	E-3	$29,480.00
FY09	BRMCL WNY DC	CORPSMAN	HM	E-5	$29,480.00
FY09	CC GROTON CT	BASIC BMET	HM	E-4	$29,480.00
FY09	NMC SDGO CA	UROLOGY TECH/SURG	HM	E-4	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC SDGO CA	PHARMACY TECH	HM	E-7	$29,480.00
FY09	LREHABCEN MIRA	CLIN PSYCH	230	O-3	$64,205.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$29,480.00
FY09	CC GROTON CT	OPTICIAN	HM	E-5	$29,480.00
FY09	CC GROTON CT	RAD HLTH TECH	HM	E-7	$29,480.00
FY09	NMC SDGO CA	PSYCH TECH	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC SDGO CA	PSYCH TECH	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC GROTON CT	HCA/GROUP PRACTICE ADMIN	230	O-3	$64,205.00
FY09	NUMI GROTON CT	HCA/ADMIN MED SVC	230	O-2	$64,205.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	CC GROTON CT	ENVR HLT OFF	230	O-2	$64,205.00
FY09	CC GROTON CT	BASIC X-RAY	HM	E-4	$29,480.00
FY09	CC GROTON CT	DENT SURG TECH	DT	E-3	$29,480.00
FY09	CC GROTON CT	CAST RM TECH	HM	E-5	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	NHBRCL NWS SEAL	PREV MED TECH	HM	E-6	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	NMC SDGO CA	PSYCH TECH	HM	E-3	$29,480.00
FY09	NMC SDGO CA	PSYCH TECH	HM	E-3	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	NMC SDGO CA	PHARMACY TECH	HM	E-3	$29,480.00
FY09	CC GROTON CT	OCULAR TECH	HM	E-4	$29,480.00
FY09	NMC SDGO CA	STAF NRS	290	O-2	$64,205.00
FY09	CC GROTON CT	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	CC GROTON CT	ENT TECH	HM	E-4	$29,480.00
FY09	NMC SDGO CA	STAF NRS	290	O-2	$64,205.00
FY09	BRCL S OCEA	MED LAB TECH ADV	HM	E-5	$29,480.00
FY09	BRMCL NTC SDGO	OPTOMETRIST	230	O-3	$64,205.00
FY09	BRCL S OCEA	PHARM TECH	HM	E-5	$29,480.00
FY09	NMC SDGO CA	PHARM TECH	HM	E-5	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-3	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-3	$29,480.00
FY09	BRMCL NS SDGO	PHARMACY TECH	HM	E-6	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	NDC SE JAX FL	DENTAL TECH	DT	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	NMC SDGO CA	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NMC SDGO CA	PHARMACY TECH	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-4	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC GROTON CT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	OPHTHALSUPPTRACT	OPTICIAN	HM	E-5	$29,480.00
FY09	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NHBRCL EVERETT	ENVR HLT OFF	230	O-2	$64,205.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$29,480.00
FY09	NBHCL KY WEST FL	ADV X-RAY	HM	E-5	$29,480.00
FY09	VHOSP JAX FL	PSYCH TECH	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	AMB CARE NRS	290	O-3	$64,205.00
FY09	VHOSP JAX FL	PHARMACY TECH	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	AMB CARE NRS	290	O-3	$64,205.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$29,480.00
FY09	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	UROLOGY TECH	HM	E-6	$29,480.00
FY09	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NBHCL KY WEST FL	PHARM TECH	HM	E-5	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-3	$29,480.00
FY09	VHOSP JAX FL	OCULAR TECH	HM	E-4	$29,480.00
FY09	VHOSP JAX FL	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST (92D10)	DT	E-3	$29,480.00
FY09	VHOSP JAX FL	ENT TECH	HM	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST (92D10)	DT	E-6	$29,480.00
FY09	NHBRCL EVERETT	PHARM TECH	HM	E-5	$29,480.00
FY09	NMC SDGO CA	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-4	$29,480.00
FY09	NHBRCL EVERETT	OPTICIAN	HM	E-5	$29,480.00
FY09	VALREHCEN JAX	MEDICAL EXAMS	HM	E-3	$29,480.00
FY09	NMC SDGO CA	CV TECH	HM	E-5	$29,480.00
FY09	VHOSP JAX FL	PHARMACY TECH	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCLBR S WHITI	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	NUC MED TECH	HM	E-5	$29,480.00
FY09	NSHS PORTSMOUTH	NUC MED TECH/INST	HM	E-6	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCLBR S WHIDB	DENT LAB TECH BASIC	DT	E-4	$29,480.00
FY09	NBHCL KY WEST FL	SAR TECH	HM	E-4	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	VHOSP JAX FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NBHCL MAYPORT FL	AERO MED TECH	HM	E-5	$29,480.00
FY09	NOSTRA DET MAYPT	OPTICIAN	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	UROLOGY TECH	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	UROLOGY TECH	HM	E-5	$29,480.00
FY09	NBHCL MAYPORT FL	BASIC X-RAY	HM	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	DENT ASST	DT	E-4	$29,480.00
FY09	NBHCL MAYPORT FL	ADV X-RAY	HM	E-5	$29,480.00
FY09	NBHCL KY WEST FL	PHARM TECH	HM	E-5	$29,480.00
FY09	NBHCL MAYPORT FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC QUANTICO VA	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NMC SDGO CA	DENTALMAN	DT	E-3	$29,480.00
FY09	NH BREM FH BR DT	OCULAR TECH/MOB TO 29320/40240	HM	E-6	$29,480.00
FY09	NMC SDGO CA	BASIC BMET	HM	E-4	$29,480.00
FY09	NMC SDGO CA	BASIC BMET	HM	E-5	$29,480.00
FY09	NMC QUANTICO VA	CORPSMAN	HM	E-4	$29,480.00
FY09	NMC SDGO CA	PEDIATRICIAN/ DEVELOPMENTAL	210	O-4	$64,205.00
FY09	VHOSP JAX FL	ADV X-RAY	HM	E-4	$29,480.00
FY09	VHOSP JAX FL	ADV X-RAY	HM	E-4	$29,480.00
FY09	NDC SE JAX FL	PERIODONTIST/ADDU TO 99070/00207	220		$64,205.00
FY09	NMC SDGO CA	NEUROLOGIST	210	O-5	$64,205.00
FY09	NDC SE JAX FL	ORAL DIAGNOSIS	220	O-5	$64,205.00
FY09	NDC SE JAX FL	DENT GP	220	O-3	$64,205.00
FY09	NSHS SDIEGO	COMPTROLLER	230	O-3	$64,205.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NDC SE JAX FL	DENT LAB TECH BASIC/ FMF/ MOB TO 02260/6	DT	E-5	$29,480.00
FY09	NMC SDGO CA	DIETITIAN/(CLIN)	230	O-2	$64,205.00
FY09	NDC SE JAX FL	DENTALMAN/ FMF/ MOB TO 02610/67691	DT	E-3	$29,480.00
FY09	NMC SDGO CA	OBSTR-GYN/REPROD	210	O-3	$64,205.00
FY09	NH BREMERTON WA	MED LAB TECH ADV	HM	E-3	$29,480.00
FY09	NDC SE JAX FL	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC SE JAX FL	DENTAL TECH	DT	E-6	$29,480.00
FY09	NMC SDGO CA	PSYCHIATRIST	210	O-3	$64,205.00
FY09	NDC SE JAX FL	DENTAL TECH	DT	E-5	$29,480.00
FY09	NH BREMERTON WA	ENT TECH	HM	E-3	$29,480.00
FY09	NH BREMERTON WA	OPTICIAN	HM	E-6	$29,480.00
FY09	NDC SE JAX FL	DENTAL TECH	DT	E-5	$29,480.00
FY09	NMC SDGO CA	CV TECH	HM	E-5	$29,480.00
FY09	NDC SE JAX FL	DENTAL TECH	DT	E-4	$29,480.00
FY09	NDC SE JAX FL	COMPRE DENT	220	O-3	$64,205.00
FY09	NDC SW SAN DIEGO	DENT GP	220	O-3	$64,205.00
FY09	VHOSP JAX FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	VHOSP JAX FL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	PHARM TECH	HM	E-5	$29,480.00
FY09	NDC SW SAN DIEGO	DENTALMAN	DT	E-3	$29,480.00
FY09	BRDCL EVERETT WA	DENTALMAN/PREV DENT	DT	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	X-RAY TECH	DT	E-4	$29,480.00
FY09	VHOSP JAX FL	OPTICIAN	HM	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$29,480.00
FY09	VHOSP JAX FL	PEDIATRICIAN/ ADOLESCENT MED	210	O-4	$64,205.00
FY09	VHOSP JAX FL	BASIC BMET	HM	E-5	$29,480.00
FY09	NDC SW SAN DIEGO	DEN EQUIP RPR (6N)	DT	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$29,480.00
FY09	NMC SDGO CA	HCA/ADMIN MED SVCS	230	O-2	$64,205.00
FY09	NMC SDGO CA	COMPRE DENT/TMD/ OROFACIAL PAIN	220	O-5	$64,205.00
FY09	NMEDCEN PTSMOUTH	MED LAB TECH ADV	HM	E-6	$29,480.00
FY09	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$29,480.00
FY09	NDC SW SAN DIEGO	PERIODONTIST	220	O-4	$64,205.00
FY09	NMEDCEN PTSMOUTH	PSYCH TECH	HM	E-3	$29,480.00
FY09	NH BREMERTON WA	PHARMACY TECH	HM	E-6	$29,480.00
FY09	NDC SW SAN DIEGO	PROSTHODONTIST	220	O-6	$64,205.00
FY09	BRDCL MCCDC QUAN	DENTAL TECH	DT	E-6	$29,480.00
FY09	NH BREMERTON WA	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NMC SDGO CA	ADV X-RAY	HM	E-4	$29,480.00
FY09	BRDCL MCCDC QUAN	DENTAL TECH	DT	E-5	$29,480.00
FY09	BRDCL MCCDC QUAN	DENTAL TECH	DT	E-5	$29,480.00
FY09	BRDCL MCCDC QUAN	DENTAL TECH	DT	E-5	$29,480.00
FY09	NDC SW SAN DIEGO	DENT LAB TECH BASIC	DT	E-6	$29,480.00
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	CC NPT MC U DT	BASIC X-RAY/ FMF/ MOB TO 29820/67685	HM	E-6	$29,480.00
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	HCSO LAR 5	HCA/LEAD AGENT STAFF	230	O-4	$64,205.00
FY09	NMC HAWAII HI	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NDC NE NEWPORT	DENTAL TECH	DT	E-4	$29,480.00
FY09	CC NEWPT RI	CAST RM TECH	HM	E-6	$29,480.00
FY09	CC NEWPT RI	PT TECH	HM	E-4	$29,480.00
FY09	CC NEWPT RI	PT TECH	HM	E-3	$29,480.00
FY09	NDCLBR S WILGR	DENTAL TECH	DT	E-4	$29,480.00
FY09	NH PLES IT	CORPSMAN	HM	E-4	$29,342.76
FY09	NHBRCL VICP	BASIC X-RAY	HM	E-3	$29,480.00
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NDC YOKOSUKA JA	ORTHODONTIST	220	O-5	$64,205.00
FY09	NH PLES IT	AUDIO	230	O-4	$77,214.60
FY09	NH PLES IT	DIETITIAN	230	O-3	$66,501.99
FY09	NH PLES IT	PERS/MPWR MGT/HCA	230	O-3	$66,501.99
FY09	NH PLES IT	PERS/MPWR MGT	290	O-5	$86,861.30
FY09	NH PLES IT	OPSMGT MEDFAC	230	O-3	$66,501.99
FY09	NH PLES IT	PEDIATRICIAN/DEVELOP	210	O-5	$86,861.30
FY09	NHBRCL VICP	DIETICIAN	230	O-3	$64,205.00
FY09	NH PLES IT	STAF NRS/M-SURG/HS DPTHD	290	O-3	$66,501.99
FY09	NH PLES IT	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH PLES IT	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH PLES IT	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH PLES IT	STAF NRS/COMMUNITY HLTH	290	O-5	$86,861.30
FY09	NH PLES IT	STAF NRS/M-SURG	290	O-2	$52,585.65
FY09	NH PLES IT	STAF NRS/M-SURG	290	O-3	$66,501.99
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	STAF NRS/M-SURG/HS DIV OFF	290	O-5	$86,861.30
FY09	NH PLES IT	CORPSMAN/SEL	HM	E-7	$47,253.38
FY09	NH PLES IT	STAF NRS/PEDS/HS DIV OFF	290	O-3	$66,501.99
FY09	NH PLES IT	ED TRA PLN GEN/HCA	230	O-3	$66,501.99
FY09	NDC PEARL HARBOR	DENTAL TECH	DT	E-4	$29,480.00
FY09	NDC PEARL HARBOR	DENTAL TECH	DT	E-4	$29,480.00
FY09	NDC PEARL HARBOR	DENTAL TECH/ PREV DENT	DT	E-4	$29,480.00
FY09	NDC PEARL HARBOR	DENTAL TECH/ PREV DENT	DT	E-4	$29,480.00
FY09	NDC PEARL HARBOR	DENTAL TECH/CSR/LPO	DT	E-4	$29,480.00
FY09	NH PLES IT	STAF NRS/M-SURG/HS DIV OFF	290	O-3	$66,501.99
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	CC NEWPT RI	OPHTHALMOLOGIST/HS DPTHD	210	O-5	$64,205.00
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	DENT ADMIN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	CORSPMAN	HM	E-4	$29,342.76
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH PLES IT	CORPSMAN	HM	E-7	$47,253.38
FY09	NH PLES IT	CORPSMAN	HM	E-7	$47,253.38

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH PLES IT	CORPSMAN	HM	E-7	$47,253.38
FY09	NH PLES IT	CORPSMAN	HM	E-7	$47,253.38
FY09	NH PLES IT	CORPSMAN	HM	E-8	$52,891.60
FY09	NH PLES IT	CORPSMAN	HM	E-5	$35,075.49
FY09	NH PLES IT	CORPSMAN	HM	E-6	$41,029.49
FY09	NH CHARLESTON SC	PHARMACY TECHNICIAN	HM	E-4	$29,480.00
FY09	NDC NE NEWPORT	DENTAL TECH	DT	E-5	$29,480.00
FY09	NDC P ISL SC	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC P ISL SC	DENTAL TECH/OPERATIVE SUPERVISOR	DT	E-5	$29,480.00
FY09	NDC P ISL SC	DENTAL TECH	DT	E-4	$29,480.00
FY09	BDC WPNSTA CHASN	DENTALMAN	DT	E-3	$29,480.00
FY09	BDC WPNSTA CHASN	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC P ISL SC	DENTALMAN	DT	E-3	$29,480.00
FY09	NH CHARLESTON SC	PHARMACY TECHNICIAN	HM	E-5	$29,480.00
FY09	NDC P ISL SC	DENTALMAN	DT	E-3	$29,480.00
FY09	NH CHARLESTON SC	PHARMACY TECHNICIAN	HM	E-3	$29,480.00
FY09	NH CHARLESTON SC	MED LAB TECH	HM	E-6	$29,480.00
FY09	NH CHARLESTON SC	CYTO TECH	HM	E-4	$29,480.00
FY09	NH CHARLESTON SC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CHARLESTON SC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CHARLESTON SC	CORPSMAN	HM	E-5	$29,480.00
FY09	NH CHARLESTON SC	CORPSMAN	HM	E-5	$29,480.00
FY09	BDC WPNSTA CHASN	DENTALMAN	DT	E-3	$29,480.00
FY09	BRDNCL S CORPC	DENTAL TECH	DT	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	DENTALMAN	DT	E-3	$29,480.00
FY09	NMC HAWAII HI	PHARMACY TECH/SUPV	HM	E-6	$29,480.00
FY09	NMC HAWAII HI	PSYCH TECH	HM	E-3	$29,480.00
FY09	NDC BR INGLESIDE	DENTALMAN (90)	DT	E-3	$29,480.00
FY09	NDCLBR S DALLA	DENTALMAN	DT	E-3	$29,480.00
FY09	NDCLBR S DALLA	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC P ISL SC	DENTALMAN	DT	E-3	$29,480.00
FY09	BRDNCL S CORPC	DENTALMAN	DT	E-3	$29,480.00
FY09	NH CHARLESTON SC	HCA/DPTHD	230		$64,205.00
FY09	BMC NSA MEMPHIS	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BMC NSA MEMPHIS	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRDNCL S MFS	DENTAL TECH	DT	E-4	$29,480.00
FY09	BRDNCL S MFS	DENTAL TECH	DT	E-4	$29,480.00
FY09	BRMCL YUMA	SAR TECH	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	HCA	230		$64,205.00
FY09	NDC P ISL SC	DEN SURG TECH	DT	E-4	$29,480.00
FY09	BRDNCL S CORPC	COMPRE DENT	220	O-3	$64,205.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CHARLESTON SC	OPTICIAN	HM	E-4	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITAL CORPSMAN	HM	E-5	$29,480.00
FY09	CC NPT MC U DT	CORPSMAN/ FMF/ MOB TO 32625/67652	HM	E-4	$29,480.00
FY09	CC NPT MC U DT	CORPSMAN/ FMF/ MOB TO 32525/67652	HM	E-4	$29,480.00
FY09	CC NEWPT RI	OPTICIAN	HM	E-7	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	CC NEWPT RI	OPTICIAN	HM	E-4	$29,480.00
FY09	CC NEWPT RI	PEDICIATRICIAN/HS DPTHD	210	O-4	$64,205.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH BEAUFORT	DERM TECH	HM	E-5	$29,480.00
FY09	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$29,480.00
FY09	NH CHARLESTON SC	GEN SUP/HCA	230	O-3	$64,205.00
FY09	NH BEAUFORT	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NH BEAUFORT	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NH BEAUFORT	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	NH BEAUFORT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH BEAUFORT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH BEAUFORT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH BEAUFORT	PT TECH	HM	E-4	$29,480.00
FY09	CC NEWPT RI	PHARM TECH	HM	E-6	$29,480.00
FY09	CC NEWPT RI	PHARM TECH	HM	E-4	$29,480.00
FY09	CC NEWPT RI	OCULAR TECH	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEWPT RI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CHARLESTON SC	OPSMGT MEDFAC	230	O-3	$64,205.00
FY09	NH BEAUFORT	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH SIGONELLA	OPTOMETRIST	230	O-3	$66,501.99
FY09	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$29,480.00
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-7	$47,253.38
FY09	NH SIGONELLA	HOSPITAL CORPSMAN/ ADMIN ASST	HM	E-7	$47,253.38
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN/ SAFETY	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	STAF NRS/M-SURG	290	O-3	$66,501.99
FY09	NH SIGONELLA	STAF NRS	290	O-5	$86,861.30
FY09	NH SIGONELLA	PC NRS PRAC	290	O-3	$66,501.99
FY09	NH SIGONELLA	STAF NRS/M-SURG/ HS DIV OFF	290	O-4	$77,214.60
FY09	NH SIGONELLA	HISTO TECH	HM	E-5	$35,075.49
FY09	NH SIGONELLA	MED LAB TECH	HM	E-4	$29,342.76
FY09	NH SIGONELLA	MED LAB TECH	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN/ PAC	HM	E-7	$47,253.38
FY09	NH ROTA	SOC WORK	230	O-3	$66,501.99
FY09	NH ROTA	CYTO TECH	HM	E-5	$35,075.49
FY09	NH ROTA	HISTO TECH	HM	E-5	$35,075.49
FY09	NH ROTA	ENT TECH	HM	E-4	$29,342.76
FY09	NH ROTA	ENT TECH	HM	E-5	$35,075.49
FY09	NH ROTA	SURFACE IDC	HM	E-6	$41,029.49
FY09	NH ROTA	MORTICIAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH ROTA	PHYSICIAN ASST/ORTHO	230	O-4	$77,214.60
FY09	NH SIGONELLA	STAF NRS	290	O-2	$52,585.65
FY09	NH SIGONELLA	AUDIO/EDIS	230	O-3	$66,501.99
FY09	NH SIGONELLA	CAST RM TECH	HM	E-3	$24,964.95
FY09	NH SIGONELLA	CAST RM TECH	HM	E-4	$29,342.76
FY09	NH SIGONELLA	BASIC X-RAY	HM	E-5	$35,075.49
FY09	NH SIGONELLA	DIETITIAN	230	O-3	$66,501.99
FY09	NH SIGONELLA	PHARM TECH	HM	E-4	$29,342.76

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HS DIV OFF	290	O-3	$66,501.99
FY09	NH SIGONELLA	STAF NRS	290	O-2	$52,585.65
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN/ LCPO	HM	E-7	$47,253.38
FY09	NH SIGONELLA	AMB CARE NRS	290	O-3	$66,501.99
FY09	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	CYTO TECH	HM	E-5	$35,075.49
FY09	NH SIGONELLA	MED LAB TECH	HM	E-4	$29,342.76
FY09	NH SIGONELLA	SURG TECH	HM	E-5	$35,075.49
FY09	NH SIGONELLA	SURG TECH	HM	E-5	$35,075.49
FY09	NH SIGONELLA	MED TECH	230	O-2	$52,585.65
FY09	NH SIGONELLA	SURFACE IDC	HM	E-6	$41,029.49
FY09	NH SIGONELLA	STAF NRS	290	O-2	$52,585.65
FY09	NH SIGONELLA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH SIGONELLA	HCA	230	O-3	$66,501.99
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH SIGONELLA	STF NRS/INST ACAD	290	O-3	$66,501.99
FY09	NH SIGONELLA	PHARM TECH	HM	E-3	$24,964.95
FY09	NH SIGONELLA	PHARM TECH	HM	E-5	$35,075.49
FY09	NH SIGONELLA	DENT GP	220	O-3	$66,501.99
FY09	NH SIGONELLA	DENT GP	220	O-6	$99,978.89
FY09	NH SIGONELLA	ENDODONTIST	220	O-3	$66,501.99
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	PREV MED TECH (90G)	HM	E-5	$35,075.49
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	OPSMGT MEDFAC	230	O-3	$66,501.99
FY09	NH SIGONELLA	EMERG MED SPEC	210	O-5	$86,861.30
FY09	NH SIGONELLA	PEDIATRICIAN	210	O-4	$77,214.60
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH SIGONELLA	AMB CARE NRS	290	O-3	$66,501.99
FY09	NH SIGONELLA	BASIC X-RAY	HM	E-4	$29,342.76
FY09	NH ROTA	PHARM TECH	HM	E-4	$29,342.76
FY09	NH ROTA	MED LAB TECH	HM	E-6	$41,029.49
FY09	NH ROTA	AMB CARE NRS	290	O-3	$66,501.99
FY09	NH ROTA	AMB CARE NRS	290	O-3	$66,501.99
FY09	NH ROTA	AMB CARE NRS	290	O-3	$66,501.99
FY09	NH ROTA	STAF NRS/HS DPTHD	290	O-4	$77,214.60
FY09	NH ROTA	ED TRA PLN GEN	290	O-3	$66,501.99
FY09	NH ROTA	CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	PHARM TECH	HM	E-4	$29,342.76
FY09	NH ROTA	MED LAB TECH	HM	E-5	$35,075.49
FY09	NH ROTA	PHARM TECH	HM	E-5	$35,075.49
FY09	NH ROTA	DENT TECH	HM	E-4	$29,342.76
FY09	NH ROTA	DENTALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	ORAL MAX SGN	220	O-4	$77,214.60
FY09	NH ROTA	DERMATOLOGIST/HS DPTHD	210	O-5	$86,861.30
FY09	NH ROTA	OTOLARYNGLGIST/DPTHD	210	O-5	$86,861.30
FY09	NH ROTA	AERO MED TECH	HM	E-5	$35,075.49

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH ROTA	PHARM TECH	HM	E-4	$29,342.76
FY09	NH ROTA	DENT GP	220	O-3	$66,501.99
FY09	NMC HAWAII HI	MED LAB TECH ADV	HM	E-6	$29,480.00
FY09	NH SIGONELLA	PODIATRIST	230	O-3	$66,501.99
FY09	NDC PEARL HARBOR	DENTALMAN/PREV DENT	DT	E-3	$29,480.00
FY09	NH SIGONELLA	PHYSICIAN ASST	230	O-2	$52,585.65
FY09	NH ROTA	AUDIO/EDIS	230	O-3	$66,501.99
FY09	NH ROTA	CAST RM TECH	HM	E-3	$24,964.95
FY09	NH ROTA	CAST RM TECH (6P)	HM	E-3	$24,964.95
FY09	NH ROTA	MED LAB TECH	HM	E-5	$35,075.49
FY09	NH ROTA	DENT LAB BASIC	HM	E-4	$29,342.76
FY09	NH ROTA	MED LAB TECH	HM	E-5	$35,075.49
FY09	NH ROTA	DENT GP	220	O-3	$66,501.99
FY09	NH SIGONELLA	PHARM TECH	HM	E-5	$35,075.49
FY09	NH ROTA	BASIC X-RAY	HM	E-4	$29,342.76
FY09	NH ROTA	INTERL REV/CMD EVAL	230	O-3	$66,501.99
FY09	NH ROTA	OPSMGT MEDFAC	230	O-3	$66,501.99
FY09	NH ROTA	MED LAB TECH	HM	E-4	$29,342.76
FY09	NH ROTA	CORPSMAN	HM	E-5	$35,075.49
FY09	NH ROTA	ORTHO CAST RM TECH	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-6	$41,029.49
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-7	$47,253.38
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	PATHLGIST	210	O-4	$77,214.60
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NDC PEARL HARBOR	DENTALMAN	DT	E-3	$29,480.00
FY09	NH ROTA	HOSPITALMAN	HM	E-3	$24,964.95
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NH ROTA	AERO MED TECH	HM	E-4	$29,342.76

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH ROTA	HOSPITAL CORPSMAN	HM	E-4	$29,342.76
FY09	NNDC BETHESDA	DENTALMAN/ FMF/ MOB TO 02620/67690	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	DENTALMAN	DT	E-3	$29,480.00
FY09	NNMC BETHESDA	DENTALMAN	DT	E-3	$29,480.00
FY09	NNDC BETHESDA	DENTALMAN	DT	E-3	$29,480.00
FY09	NNDC BETHESDA	DENTALMAN	DT	E-3	$29,480.00
FY09	NNDC BETHESDA	DENTALMAN	DT	E-3	$29,480.00
FY09	NNDC BETHESDA	DENTALMAN	DT	E-3	$29,480.00
FY09	BRMCL B LC	STAF NRS	290	O-3	$64,205.00
FY09	NNDC BETHESDA	DENTALMAN/ FMF/ MOB TO 02610/67690	DT	E-3	$29,480.00
FY09	BRMCL NS NORFOLK	PHARMACY TECH	HM	E-4	$29,480.00
FY09	BRMCL B LC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNDC BETHESDA	DENT EQUIP REPAIR TECH	DT	E-4	$29,480.00
FY09	BRMCL NS NORFOLK	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNDC BETHESDA	COMPRE DENT	220	O-4	$64,205.00
FY09	NNDC BETHESDA	ORAL DIAGNOS	220	O-5	$64,205.00
FY09	NNDC BETHESDA	ORAL PATHLGIST	220	O-6	$64,205.00
FY09	BRMCL NS NORFOLK	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRMCL NS NORFOLK	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNMC BETHESDA	PT TECH	HM	E-5	$29,480.00
FY09	NDC BR INGLESIDE	DENTALMAN (90S)	DT	E-3	$29,480.00
FY09	NMC ANPOLIS MD	MED TECH	230	O-4	$64,205.00
FY09	NMEDCEN PTSMOUTH	PT TECH	HM	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	PT TECH	HM	E-4	$29,480.00
FY09	NMC ANPOLIS MD	MED LAB TECH ADV	HM	E-5	$29,480.00
FY09	NMC ANPOLIS MD	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NNDC BETHESDA	DENTAL TECH	DT	E-6	$29,480.00
FY09	NNMC BETHESDA	PT TECH	HM	E-5	$29,480.00
FY09	AFRDBIOLRSCHINST	PHYSIOLOGIST 5200/03 N0195	230	O-3	$64,205.00
FY09	NNMC BETHESDA	PT TECH	HM	E-5	$29,480.00
FY09	NNDC BETHESDA	DENTAL TECH	DT	E-4	$29,480.00
FY09	NNDC BETHESDA	DENTAL TECH	DT	E-4	$29,480.00
FY09	BRMCL B LC	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NNDC BETHESDA	DENTAL TECH	DT	E-4	$29,480.00
FY09	NNDC BETHESDA	DENTAL TECH	DT	E-4	$29,480.00
FY09	NNDC BETHESDA	DENTAL TECH	DT	E-4	$29,480.00
FY09	NNMC BETHESDA	PT TECH	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	MED LAB TECH ADV	HM	E-6	$29,480.00
FY09	NNMC BETHESDA	ENT TECH	HM	E-4	$29,480.00
FY09	BRMCL NS NORFOLK	CORPSMAN	HM	E-4	$29,480.00
FY09	BRMCL NS NORFOLK	CORPSMAN	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	HISTO TECH	HM	E-4	$29,480.00
FY09	BRMCL NS NORFOLK	CORPSMAN	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	HISTO TECH	HM	E-7	$29,480.00
FY09	BRMCL NS NORFOLK	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNMC BETHESDA	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	HOSPITALMAN	HM	E-3	$29,480.00
FY09	AFRDBIOLRSCHINST	MICROBIOLOGIST	230	O-3	$64,205.00
FY09	NNMC BETHESDA	PHARM TECH	HM	E-5	$29,480.00
FY09	NDC MLANT NORVA	PUBHLTDENT/HD,PREV DENT DEPT	220		$64,205.00
FY09	NNMC BETHESDA	PHARMACY TECH/IV ADMIX	HM	E-5	$29,480.00
FY09	NNMC BETHESDA	PHARMACY TECH/MAT MGMT	HM	E-5	$29,480.00
FY09	NNMC BETHESDA	PHARMACY TECH/OPD	HM	E-3	$29,480.00
FY09	NNMC BETHESDA	PHARMACY TECH/UNIT DOSE	HM	E-4	$29,480.00
FY09	BRMCL NS NORFOLK	BASIC X-RAY	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	CV TECH	HM	E-5	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NH SIGONELLA	STAF NRS	290	O-2	$52,585.65
FY09	BRMCL NS NORFOLK	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRMCL NS NORFOLK	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNMC BETHESDA	BASIC BMET	HM	E-5	$29,480.00
FY09	NNMC BETHESDA	NEUROLOGIST	210	O-3	$64,205.00
FY09	NNMC BETHESDA	PEDIATRICIAN/ NEOTOLOGY	210	O-5	$64,205.00
FY09	NNMC BETHESDA	PSYCHIATRIST	210	O-3	$64,205.00
FY09	NNMC BETHESDA	ENT TECH	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	CV TECH	HM	E-5	$29,480.00
FY09	BRMCL NS NORFOLK	CORPSMAN	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	CV TECH	HM	E-6	$29,480.00
FY09	NNMC BETHESDA	CV TECH	HM	E-6	$29,480.00
FY09	BRMCL B LC	CORPSMAN	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	DERM TECH	HM	E-5	$29,480.00
FY09	NOSTRA DET BETH	OPTICIAN	HM	E-6	$29,480.00
FY09	BRMCL DTRC BETH	HOSPITAL CORPSMAN	HM	E-6	$29,480.00
FY09	AFRDBIOLRSCHINST	PHYSIOLOGIST 5200/02 N0218	230	O-3	$64,205.00
FY09	NNMC BETHESDA	CARDIOVASCULAR TECH	HM	E-5	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC NEW ORLNS	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ /MOB TO 23840/67649	HM	E-3	$29,480.00
FY09	CC PTSMTH NH	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 33525/67653	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	HOSPITAL CORPSMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITAL CORPSMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITAL CORPSMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITAL CORPSMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITAL CORPSMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	CC PTSMTH NH	CORPSMAN/CC	HM	E-5	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITAL CORPSMAN	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	PERIODONTIST	220	O-4	$64,205.00
FY09	NHOSP GLAKES	PSYCH TECH	HM	E-3	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NHOSP GLAKES	PSYCH TECH	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	PSYCH TECH	HM	E-5	$29,480.00
FY09	NHOSP GLAKES	PSYCH TECH/ BEST	HM	E-4	$29,480.00
FY09	NDCLBR NOLA	DENTAL TECH	DT	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	ADV X-RAY	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	ADV X-RAY	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	PHARM TECH	HM	E-4	$29,480.00
FY09	BMC SJRB FW T	CORPSMAN	HM	E-6	$29,480.00
FY09	CC NOLA MC U D	HOPITALMAN/ FMF/ MOB TO 13730/67645	HM	E-3	$29,480.00
FY09	SHPYD BDENCL NOR	ORAL MAX SGN	220		$64,205.00
FY09	CC NOLA MC U D	HOSPITALMAN/ FMF/ MOB TO 13460/67645	HM	E-3	$29,480.00
FY09	CC NOLA MC U D	HOSPITALMAN/ FMF/ MOB TO 13635/67645	HM	E-3	$29,480.00
FY09	CC NOLA MC U D	HOSPITALMAN/ FMF/ MOB TO 13650/67645	HM	E-3	$29,480.00
FY09	CC NOLA MC U D	HOSPITALMAN/ FMF/ MOB TO 13855/67645	HM	E-3	$29,480.00
FY09	NDCLBR NOLA	DENTALMAN	DT	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	CV TECH	HM	E-5	$29,480.00
FY09	NDC MLANT NORVA	DENT GP	220	O-4	$64,205.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33540/67653	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33555/67653	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33630/67653	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33635/67653	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33650/67653	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	HOSPITALMAN/ FMF/ MOB TO 33745/67653	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	PSYCH TECH	HM	E-3	$29,480.00
FY09	NMEDCEN PTSMOUTH	RAD HLTH TECH	HM	E-5	$29,480.00
FY09	NHOSP GLAKES	PSYCH TECH	HM	E-3	$29,480.00
FY09	NHOSP GLAKES	MED LAB TECH	HM	E-5	$29,480.00
FY09	NMEDCEN PTSMOUTH	NEUROLOGIST	210	O-3	$64,205.00
FY09	NMEDCEN PTSMOUTH	PEDIATRICIAN/ DEVELOPMENTAL	210	O-4	$64,205.00
FY09	NHOSP GLAKES	PHARM TECH	HM	E-3	$29,480.00
FY09	NMC PT MC U DET	BASIC BMET/ FMF/ MOB TO 01375/67803	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	PHARM TECH	HM	E-4	$29,480.00
FY09	NMEDCEN PTSMOUTH	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NHOSP GLAKES	CYTO TECH	HM	E-5	$29,480.00
FY09	BRMCL ARL ANNEX	PT TECH	HM	E-4	$29,480.00
FY09	NDC MLANT NORVA	DENT GP	220	O-5	$64,205.00
FY09	BRMCL ARL ANNEX	PHYS THERAPIST	230	O-2	$64,205.00
FY09	BRMCL ARL ANNEX	CORPSMAN	HM	E-4	$29,480.00
FY09	NDC CP LEJEUNE	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC CP LEJEUNE	DT SUPVR/PT CONTROL	DT	E-5	$29,480.00
FY09	NBMCL WPS EARLE	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NH CP LEJEUNE NC	MED LAB TECH	HM	E-7	$29,480.00
FY09	NBMCL WPS EARLE	PHYSICIAN ASST	230	O-2	$64,205.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BMEDCL EC LKHU	ADV BMET	HM	E-5	$29,480.00
FY09	BRDCL US AN	DENT GP	220	O-3	$64,205.00
FY09	BMEDCL EC LKHU	HOSPITAL CORPSMAN	HM	E-5	$29,480.00
FY09	BMEDCL EC LKHU	HOSPITAL CORPSMAN	HM	E-5	$29,480.00
FY09	BMEDCL EC LKHU	HOSPITAL CORSPMAN	HM	E-6	$29,480.00
FY09	BRDCL US AN	DENT LAB TECH BASIC	DT	E-5	$29,480.00
FY09	BRMCL S FALLON	BASIC X-RAY	HM	E-5	$29,480.00
FY09	NBMCL WPS EARLE	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHBRCL PASCAGOUL	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NHBRCL PASCAGOUL	PHARM TECH	HM	E-5	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NHBRCL PASCAGOUL	PHYSICIAN ASST	230		$64,205.00
FY09	NH CP LEJEUNE NC	PT TECH	HM	E-3	$29,480.00
FY09	NH CP LEJEUNE NC	DIETICIAN	230	O-1	$64,205.00
FY09	NH CP LEJEUNE NC	BASIC BMET	HM	E-5	$29,480.00
FY09	NH CP LEJEUNE NC	PHARM TECH	HM	E-5	$29,480.00
FY09	BRMCL NSGA CHPKE	SURFACE IDC	HM	E-5	$29,480.00
FY09	BRMCL S FALLON	PHARMACY TECH	HM	E-6	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NH CP LEJEUNE NC	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NDCLBR DAM NECK	DENTALMAN	DT	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRMCL S FALLON	SAR TECH	HM	E-4	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRMEDCL NSTA	PHYSICIAN ASST	230	O-2	$64,205.00
FY09	NMC HAWAII HI	HOSPTIAL CORPSMAN	HM	E-4	$29,480.00
FY09	BRMDCL S KINGS	SURFACE IDC	HM	E-6	$29,480.00
FY09	NMC HAWAII HI	ENT TECH	HM	E-5	$29,480.00
FY09	BRMDCL S KINGS	CORPSMAN	HM	E-4	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NDC BR PASCAGOUL	DENTALMAN (90S)	DT	E-3	$29,480.00
FY09	BRDCL US AN	DENTALMAN	DT	E-3	$29,480.00
FY09	NDCLBR NU SCO NY	DENTAL TECH	DT	E-4	$29,480.00
FY09	NMC HAWAII HI	INDUS HYG OFF	230	O-4	$64,205.00
FY09	NMC HAWAII HI	BASIC BMET	HM	E-5	$29,480.00
FY09	NMC HAWAII HI	DERM TECH	HM	E-3	$29,480.00
FY09	BRDCL US AN	DENTAL TECH	DT	E-4	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	BRMCL NSWC DLGN	HOSPITAL CORPSMAN	HM	E-5	$29,480.00
FY09	BRMCL NSWC DLGN	BASIC X-RAY	HM	E-4	$29,480.00
FY09	NHBRCL LF OGRV	SURFACE IDC	HM	E-6	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NMC HAWAII HI	HOSPITALMAN	HM	E-3	$29,480.00
FY09	BRMCL S FALLON	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NMC HAWAII HI	OPTICIAN	HM	E-5	$29,480.00
FY09	BRMCL NOS IND HD	SURFACE IDC/SUPV	HM	E-6	$29,480.00
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	BMCL BOYDS	CORPSMAN	HM	E-5	$29,480.00
FY09	NDCLBR SB NLON	DENT SURG TECH	DT	E-6	$29,480.00
FY09	NDCLBR SB NLON	DENTALMAN/OPER	DT	E-3	$29,480.00
FY09	DMCL COLUMBIA	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NDC MLANT NORVA	DENT LAB TECH BASIC	DT	E-6	$29,480.00
FY09	BRDCL S PAX	DENTALMAN	DT	E-3	$29,480.00
FY09	BRDCL S PAX	COMPRE DENT	220	O-6	$64,205.00
FY09	NMC PATUXENT	PT TECH	HM	E-4	$29,480.00
FY09	NDC MLANT NORVA	DENT LAB TECH BASIC	DT	E-5	$29,480.00
FY09	NDC MLANT NORVA	DENT LAB TECH BASIC	DT	E-5	$29,480.00
FY09	BRMCL D NECK VA	PHARM TECH	HM	E-4	$29,480.00
FY09	BMCL BURKE	HOSPITALMAN	HM	E-3	$29,480.00
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NHOSP GLAKES	CORPSMAN/ FMF/ MOB TO 23720/67649	HM	E-4	$29,480.00
FY09	NNMC BETHESDA	PSYCH TECH	HM	E-3	$29,480.00
FY09	NNMC BETHESDA	PSYCH TECH	HM	E-4	$29,480.00
FY09	NNMTC BETHESDA	HS RES	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	HS RES	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	HS RES	210	O-4	$77,214.60
FY09	NNMTC BETHESDA	HS RES	210	O-4	$77,214.60
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	HS RES	210	O-6	$99,978.89
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NNMTC BETHESDA	INTERN	210	O-3	$66,501.99
FY09	NDCLBR SB NLON	DENTALMAN/OPER	DT	E-3	$29,480.00
FY09	NNMTC BETHESDA	HS RES	210	O-4	$77,214.60
FY09	BRMDCL SMERIDI	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	BRMEDCL N BRSWK	CORPSMAN	HM	E-4	$29,480.00
FY09	NDCLBR SB NLON	DENTAL TECH/X-RAY	DT	E-5	$29,480.00
FY09	NDCLBR 9THMCD KC	DENTAL TECHNICIAN	DT	E-5	$29,480.00
FY09	NDCLBR CBC GFPT	DENTAL TECH	DT	E-4	$29,480.00
FY09	NDCLBR CBC GFPT	COMPRE DENT	220	O-4	$64,205.00
FY09	NDCLBR SB NLON	DENTALMAN/X-RAY TECH	DT	E-3	$29,480.00
FY09	NDC MLANT NORVA	DENT TECH	DT	E-4	$29,480.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	BRMDCL SMERIDI	HOSPITAL CORPSMAN	HM	E-4	$29,480.00
FY09	NDC MLANT NORVA	DENT TECH	DT	E-4	$29,480.00
FY09	BRMDCL SMERIDI	MED LAB TECH ADV	HM	E-5	$29,480.00
FY09	NDC MLANT NORVA	DENT TECH	DT	E-4	$29,480.00
FY09	BRMDCL SMERIDI	PHARMACY TECH	HM	E-4	$29,480.00
FY09	NDC BR PASCAGOUL	DENTALMAN	DT	E-3	$29,480.00
FY09	NNMC BETHESDA	PHYS THERAPIST	230	O-5	$64,205.00
FY09	NDCLBR S MRID	DENTAL TECH	DT	E-4	$29,480.00
FY09	NMC PATUXENT	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	NDC NORF D A DET	DENTALMAN/ FMF/ MOB TO 02530/67689	DT	E-3	$29,480.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	NDCLBR SB NLON	DENTALMAN	DT	E-3	$29,480.00

Appendix C
FY09 Conversions

Convert Yr	Activity	Title	Designator	Gr_Rank	Mil Cost
FY09	NDCLBR SB NLON	DENTALMAN	DT	E-3	$29,480.00
FY09	NDCLBR SB NLON	DENTALMAN	DT	E-3	$29,480.00
FY09	NMC PATUXENT	SAR TECH	HM	E-4	$29,480.00
FY09	BRMEDCL N BRSWK	OPTICIAN	HM	E-4	$29,480.00
FY09	NMC PATUXENT	MED LAB TECH ADV	HM	E-4	$29,480.00
FY09	NDCLBR SS NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	NMC PATUXENT	PHARMACIST	230	O-4	$64,205.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00
FY09	NMC PATUXENT	PHARMACY TECH	HM	E-5	$29,480.00
FY09	NDCLBR SBRSWK	DENT TECH	DT	E-4	$29,480.00
FY09	NDCLBR SBRSWK	DENTAL TECH	DT	E-5	$29,480.00
FY09	BRMCL B LC	PT TECH	HM	E-4	$29,480.00
FY09	NDC MLANT NORVA	DENTALMAN	DT	E-3	$29,480.00

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

07UN093-000378
June 29, 2007

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by Senate Appropriations Committee Report 110-37, this letter serves as a report to the Senate Appropriations Committee regarding the Navy's use of the $120 million ($20 million for procurement and $100 million for O&M) allocated on page 45 of the report.
The Navy intends to allocate the $20M of procurement funding to improve our radiography and digital imagery systems. Specifically:

- Digital Imaging Network-Picture Archiving and Communication System $9.43M
- Magnetic Resonance Imaging $2.35M
- Tomotherapy Linear Accelerator $3.39M
- CT Scanners $3.47M
- Radiographic/Fluoroscopy System $0.82M
- X-ray Units $0.54M

While Navy received $100M in FY07 O&M funding, $17.06M has been taken by OSD (HA) via the Prospective Payment System (PPS). With the remaining $82.94M, Navy Medicine will fund the following areas:

- Wounded Warrior Sustainment, Restoration, & Modernization $12M
- PDHRA - Combat Stress $17.05M
- Force Protection $5.075M
- Warfighter Refractive Surgery Enhancements $3.632M
- Facility Sustainment, Restoration, & Modernization $21.008M
- Minor Equipment replacement $24.175M

Please let me know if I can be of any further assistance.

Sincerely,

J. M. Mateczun
Rear Admiral
Senior Health Care Executive
United States Navy
Acting

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

07UN093-000377
June 29, 2007

The Honorable Robert Byrd
Chairman, Senate Appropriations Committee
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As directed by Senate Appropriations Committee Report 110-37, this letter serves as a report to the Senate Appropriations Committee regarding the Navy's use of the $120 million ($20 million for procurement and $100 million for O&M) allocated on page 45 of the report.
The Navy intends to allocate the $20M of procurement funding to improve our radiography and digital imagery systems. Specifically:

- Digital Imaging Network-Picture Archiving and Communication System $9.43M
- Magnetic Resonance Imaging $2.35M
- Tomotherapy Linear Accelerator $3.39M
- CT Scanners $3.47M
- Radiographic/Fluoroscopy System $0.82M
- X-ray Units $0.54M

While Navy received $100M in FY07 O&M funding, $17.06M has been taken by OSD (HA) via the Prospective Payment System (PPS). With the remaining $82.94M, Navy Medicine will fund the following areas:

- Wounded Warrior Sustainment, Restoration, & Modernization $12M
- PDHRA - Combat Stress $17.05M
- Force Protection $5.075M
- Warfighter Refractive Surgery Enhancements $3.632M
- Facility Sustainment, Restoration, & Modernization $21.008M
- Minor Equipment replacement $24.175M

Please let me know if I can be of any further assistance.

Sincerely,

J. M. Mateczun
Rear Admiral
Senior Health Care Executive
United States Navy
Acting

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

2008

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identified the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identified the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identified the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 4 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identified the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

LITTORAL COMBAT SHIP MISSION PACKAGES

PREPARED BY
PMS420
Program Executive Officer
Littoral and Mine Warfare
Washington Navy Yard, DC 20376-7003

February 2008

Table of Contents

Section	Page
II. Executive Summary	2
III. Background	2
IV. Incremental Development Plan	3
V. Embarked Aviation Assets	7
VI. Procurement Updates Since Last Year's Annual Report	7
VII. Mission Package Procurement Quantities and Budgeted Cost Estimate	8
VIII. Conclusion	8
Appendix	9

I. Report Requirement

Section 124 (e) of the Fiscal Year 2006 Defense Authorization Act, Public Law 109-163, directed *"The Secretary of the Navy shall submit to the Congressional defense committees each year, at the same time as the President's budget for the next fiscal year is submitted under section 1105(a) of title 31, United States Code, a report that provides current information regarding the content of any element of the Littoral Combat Ship (LCS) class of vessels that is designated as a ``mission package'', the estimated cost of any such element, and the total number of such elements anticipated."*

II. Executive Summary

The Littoral Combat Ship (LCS) will counter a spectrum of threats in the littorals to assure maritime access for Joint Forces. The LCS is a fast, agile, and networked surface combatant, optimized for operating in the littorals and focused on three primary threats: mines, submarines, and small, fast patrol boats. The underlying strength of the LCS lies in its innovative design approach, applying modularity for operational flexibility. Fundamental to this approach is the capability to rapidly install interchangeable Mission Packages (MPs) into the Seaframe.

The LCS MPs will provide the Combatant Commanders a modular, focused mission capability to provide assured access against littoral mine, submarine and surface threats. Mission Systems are incrementally added to the MP as they reach a level of maturity necessary for fielding. These systems provide warfighting capability that will be continuously improved through an evolutionary acquisition development process. MP modular capability provides an Open Architecture environment which enables future rapid insertion of new technologies. Warfighting analysis will be the primary tool for determining which technologies to pursue. Modularity, an Open Business Model, and Open System Architecture are critical to enabling future development.

III. Background

A MP consists of Mission Modules (MM), Mission Crew and Support Aircraft. Each MP provides warfighting capability for one of three focused mission areas:

- Mine Countermeasures (MCM)
- Surface Warfare (SUW)
- Anti-Submarine Warfare (ASW)

MMs combine Mission Systems (vehicles, sensors, weapons) and support equipment that install into the Seaframe via standard interfaces. The Mission Package Computing Environment (MPCE) is the primary interface that enables the MP to work on the ship. The hierarchal concept of modularity that yields a MP fielded onboard a LCS is described in three layers:

- Mission Systems = vehicles, sensors, or weapons
- Mission Module = Mission Systems + Support equipment + Standard interfaces
- Mission Package = Mission Modules + Mission Crew + Supporting Aircraft

Figure 1 depicts the layers that define a Mission Package.

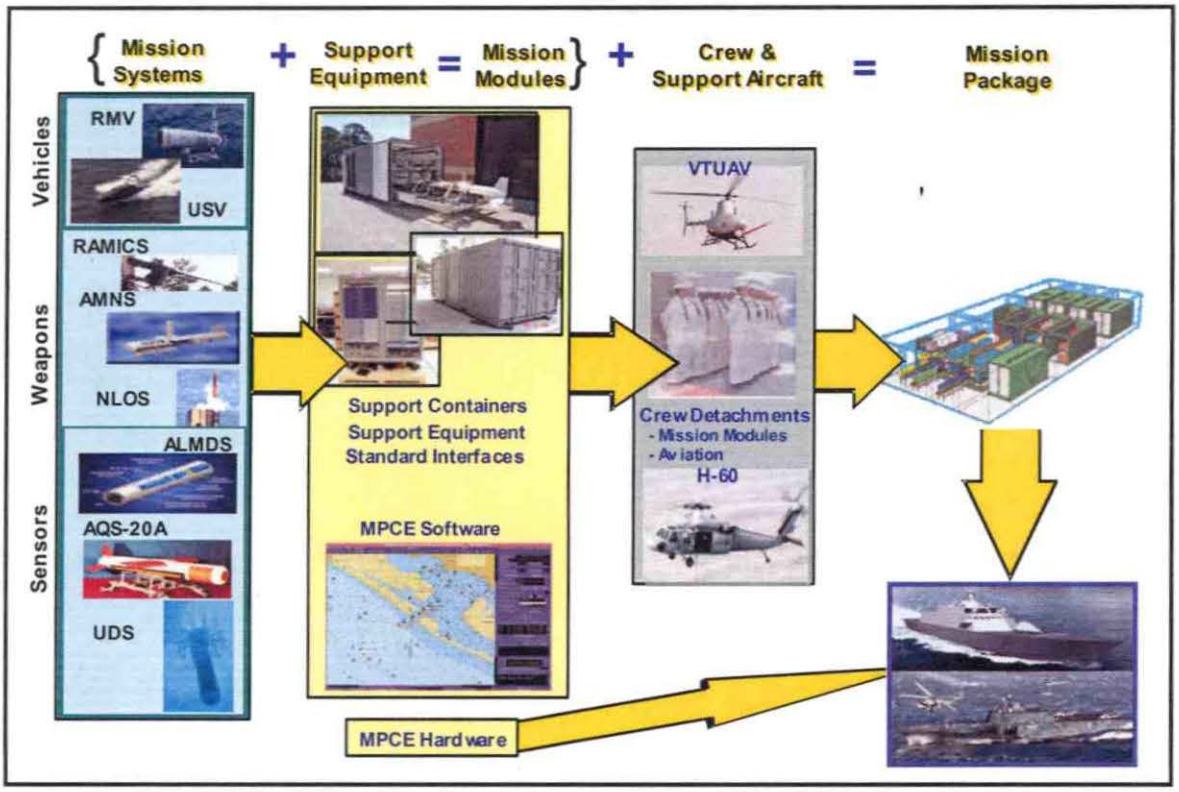


Figure 1 – Mission Package Defined

The ability to modify the LCS configuration changes the operational parameters applied to traditional surface combatants. MPs can be swapped in order to reconfigure the ship for a different mission in a short period of time, giving a Combatant Commander a uniquely flexible response to changing warfighting requirements. To achieve this flexibility, the Navy is developing and procuring specific numbers of MPs to meet the Fleet's warfighting requirements. The quantity of each MP type differs based on analysis of projected operational needs, therefore MPs are developed and procured separately from the Seaframes. This also allows the LCS warfighting capability to quickly adapt to evolving threats, using improved technology.

The "Cost As Independent Variable" (CAIV) target for each type of Mission Package is $75 million (Objective) to $150 million (Threshold) in base year Fiscal Year 2005 dollars. The budgeted end cost of the first baseline Mission Package of each variant in the fiscal year 2009 President's Budget request is: MCM $72.6 million; ASW $46.3 million; and SUW $16.4 million. An Independent Cost Estimate (ICE) is in progress.

IV. Incremental Development Plan

The current incremental development plan for the MCM, ASW and SUW MPs is shown in Figures 2 through 4. This phased plan provides incremental capability through the introduction of mature programs of record into the respective MP until the baseline capability defined in the Capabilities Development Document (CDD) is reached.

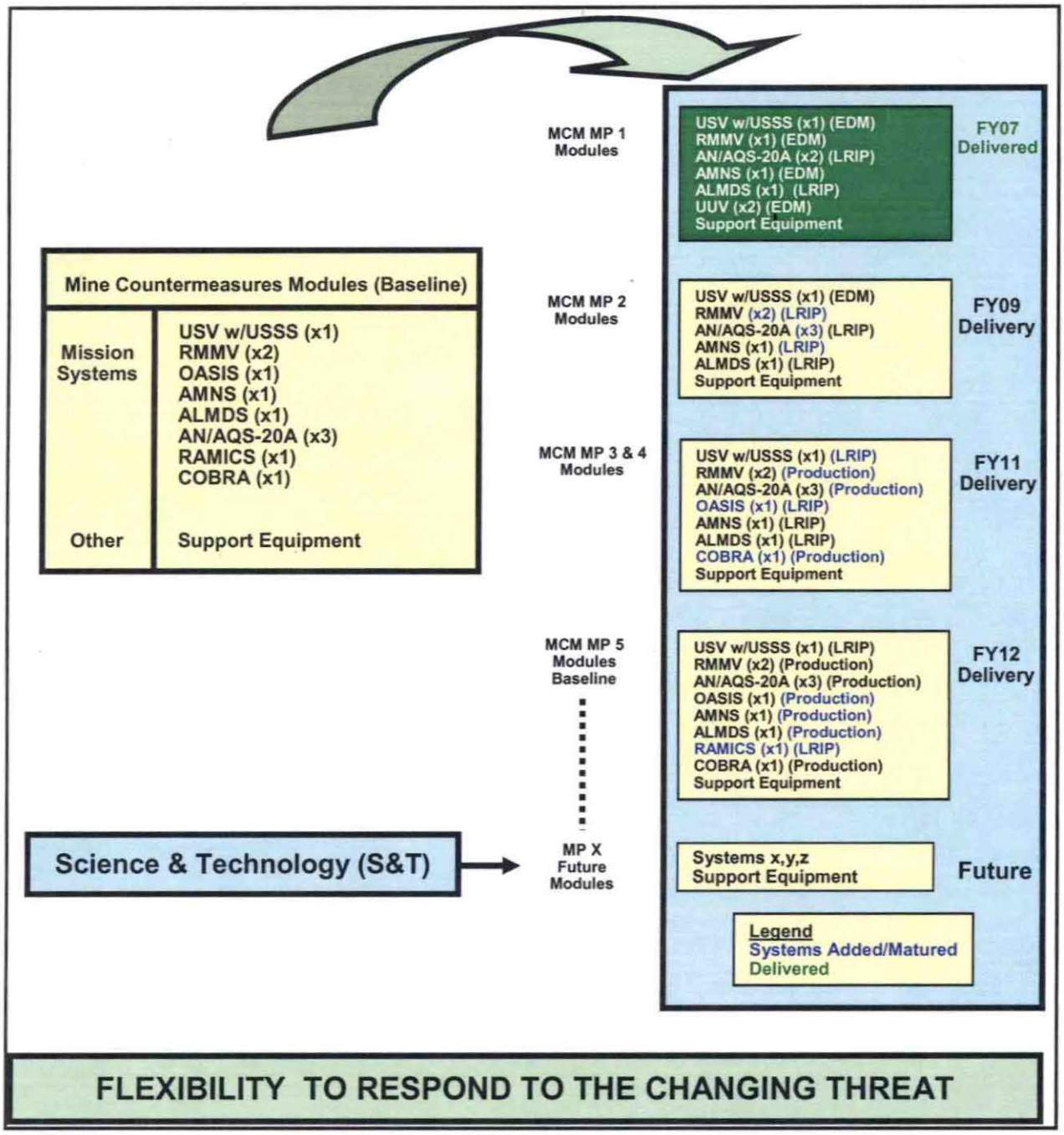


Figure 2 – MCM Mission Package Phased Delivery

Figure 2 demonstrates the development plan for the MCM MP. The initial MP (MP1) was delivered on time and on budget in Fiscal Year 2007. This first MP provides an initial capability for the detection and neutralization of volume and bottom mines. As most of the systems are designed to operate from any MH-60S helicopter, MP1 provides MCM capability to the Fleet even though the LCS Seaframe has not delivered.

MP2 is set to deliver in Fiscal Year 2009. This package will provide the same capabilities as MP1, but with greater quantities of some systems. MPs 3 and 4 will introduce magnetic and acoustic sweep capability to address the bottom/buried mines threat via the

Organic Air and Surface Influence Sweep (OASIS) system, as well as an inshore detection capability via the Coastal Battlefield Reconnaissance and Analysis (COBRA) system. MPs 3 and 4 are scheduled to deliver in Fiscal Year 2011. The MCM baseline capability is reached in Fiscal Year 2012 with the delivery of MP5. MP5 adds the Rapid Airborne Mine Clearance System (RAMICS) which neutralizes near surface and floating mines.

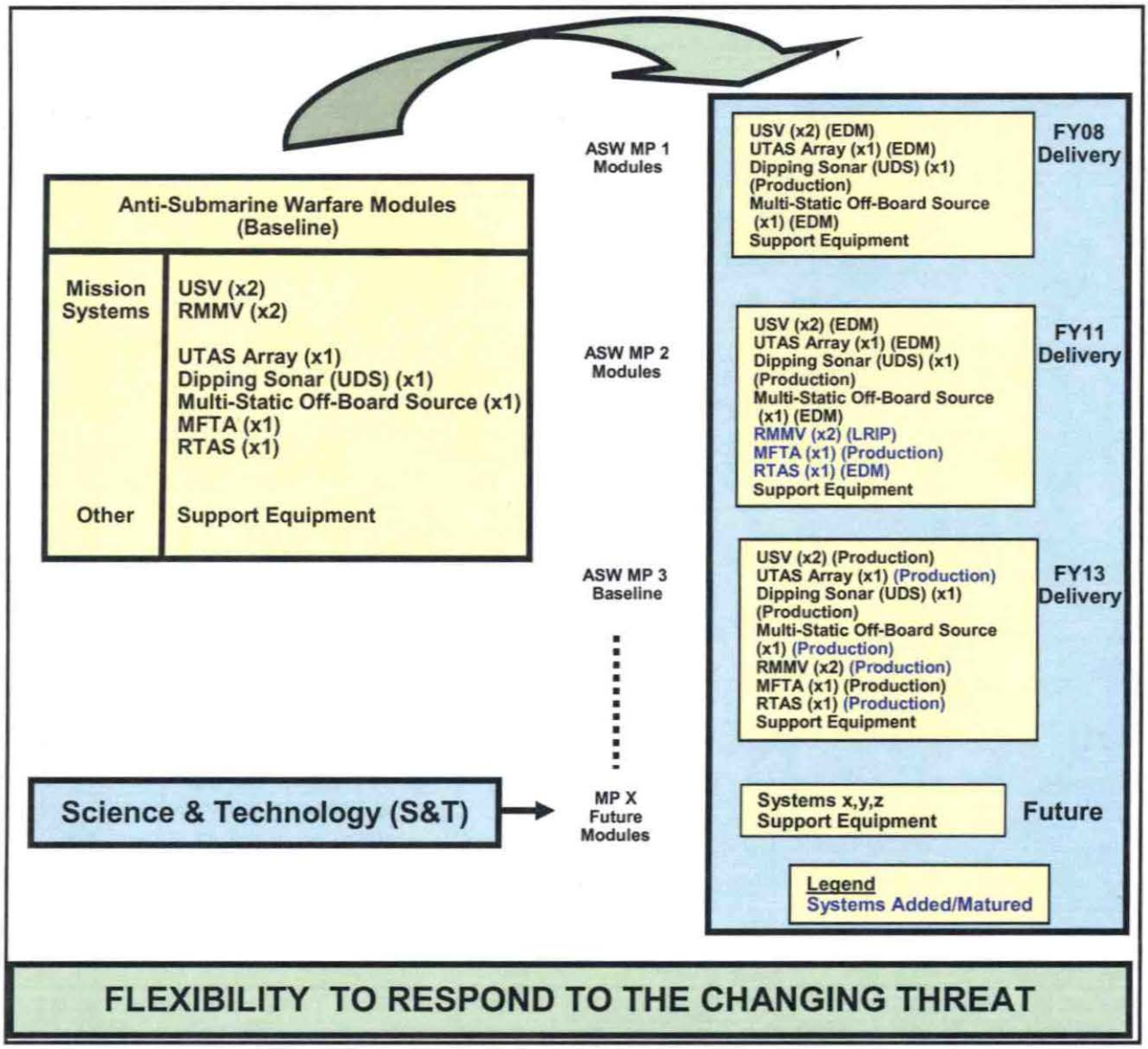


Figure 3 - ASW Mission Package Phased Delivery

Figure 3 demonstrates the development plan for the ASW MP. MP1 is set to deliver in Fiscal Year 2008 and provides an initial ASW capability through the introduction of an Unmanned Surface Vehicle (USV) and active and passive acoustic systems. This first ASW MP will provide critical training for the crew and will serve to validate and refine operational ASW concepts for LCS.

MP2 provides additional capability in Fiscal Year 2011 through the introduction of a semi-submerged Remote Multi-Mission Vehicle (RMMV) and its associated systems. RMMV provides LCS with a remote long endurance search capability.

The baseline ASW capability will be provided in Fiscal Year 2013 with MP3. Low Rate Initial Production (LRIP) and Engineering Development Models (EDM) will be replaced by the production versions of these systems.

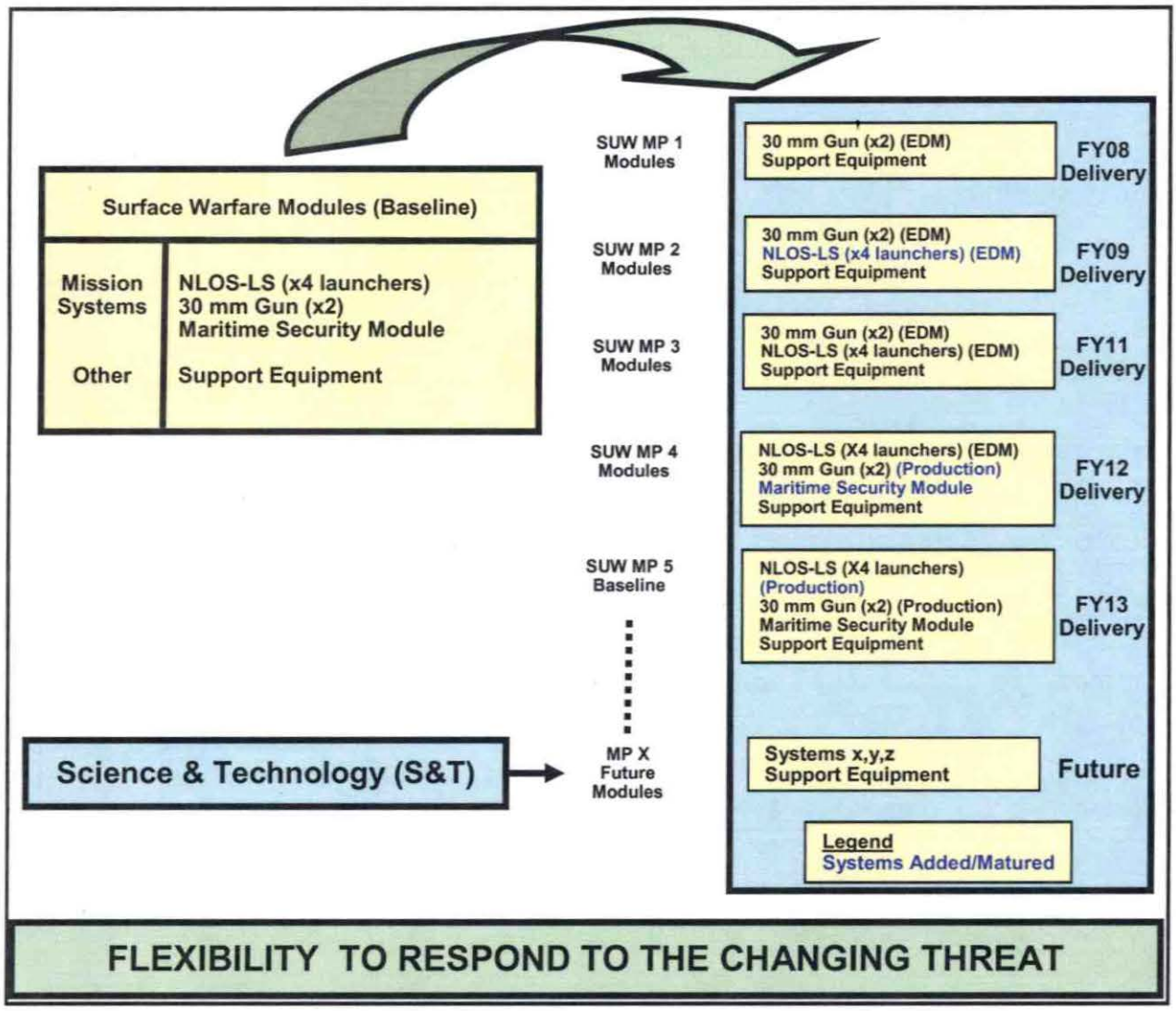


Figure 4 – SUW Mission Package Phased Delivery

Figure 4 demonstrates the development plan for the SUW MP. MP1 is set to deliver in Fiscal Year 2008. MP1 delivers a EDM dual 30 mm gun system, designed to counter small boat threats. MP2 provides additional capability through the introduction of the Non-Line of Sight Launching System (NLOS-LS). The versatile NLOS-LS offers the ability to prosecute sea and shore based threats in the littoral. The NLOS-LS system will employ the Precision Attack Missile (PAM). The PAM is currently under development, and only limited quantities will be available for testing and integration until Fiscal Year 2012. MP3 provides the same capability as MP2.

MP4 delivers in Fiscal Year 2012 and introduces a Maritime Security (MS) module. The MS module provides berthing, small boats, and the support to embark a Vessel Boarding, Search and Seizure team. The introduction of the MS module will provide LCS with an Enhanced

Maritime Interdiction Operations (EMIO) capability that is in demand in critical theaters around the globe.

The baseline SUW capability is reached in Fiscal Year 2013 with the introduction of MP5. MP5 replaces the EDM version of the NLOS-LS system with a production model.

V. Embarked Aviation Assets

	Mine Warfare	Anti-Submarine Warfare	Surface Warfare
Aircraft	VTUAV[1] MH-60S	VTUAV[1] MH-60R	VTUAV[1] MH-60R
Aircraft Mission Systems	H60 MIW mission kit • CSTRS[2] • Common Console • Aux Fuel Tank • Additional RME[3]	H60 ASW mission kit • ALFS[4] • Sonobuoys • Mk54 Torpedo	H60 SUW Armed Helo mission kit • EO/IR Sensor • Crew served guns • Hellfire missiles

1- VTUAV comes with EO/IR Sensor
2- Carriage, Stream, Tow and Recovery System (CSTRS)
3- Removable Mission Equipment (RME)
4- Airborne Low Frequency Sonar (ALFS)

Figure 5 – Mission Package Aircraft and Aircraft Mission

Each MP also contains embarked aircraft and their organic mission and support systems, as shown in Figure 5. These aircraft and systems are procured and maintained separate from the LCS program.

VI. Procurement Updates Since Last Year's Annual Report

The Fiscal Year 2009 President's Budget request includes minor changes to system quantities and modifies the phased delivery plan for the near term ASW and SUW MPs in order to support the restructured LCS program. Changes are as follows:

- One MCM MP and one SUW MP were eliminated to align MP procurement with the LCS procurement profile.
- The MCM baseline capability delivery was delayed until Fiscal Year 2012 based on the availability of the RAMICS system.
- One Airborne Mine Neutralization System and one Airborne Laser Mine Detection System in MCM MP 2 were eliminated to make MCM MP2 consistent with the baseline MCM MP.
- ASW MPs 2 and 3 were delayed in order to align schedules and priorities with the LCS Seaframe program.
- SUW MPs 3 through 6 were delayed to mitigate risk associated with maturing the MP.

VII. Mission Package Procurement Quantities and Budgeted Cost Estimate

Figure 6 provides a detailed breakdown of the MP costs and prices per fiscal year. The annual unit cost includes hardware cost for MP systems and support equipment. Backfit quantities and costs to upgrade initial MPs to a baseline configuration are also provided.

In accordance with Seaframe inventory numbers, the MPCE is procured as a shipset not per MP, and is therefore shown separately. MPCE quantities include procurements for shore sites. These sites are necessary for training and integration efforts and are therefore included in the total MPCE quantities.

MP "Buys"	Prior Years	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Delivery FY
MCM MP Total Qty		1		2	2	2	2	2	
MCM MP 1	36.9								Delivered FY07
MCM MP 2		34.5							MCM MP 2 - FY09
MCM MP 3 - 4		2.0		107.1	20.9				MCM MP 3/4 - FY11
MCM MP 5 - 12 (Baseline)					143.1	141.5	148.8	141.5	MCM MP 5 - FY12
MCM MP Annual Hardware Cost	36.9	36.5		107.1	164.0	141.5	148.8	141.5	
ASW MP QTY						1	1		
ASW MP 1	26.7	15.3	4.1						ASW MP 1 - FY08
ASW MP 2	18.2		1.0	3.0	15.7				ASW MP 2 - FY11
ASW MP 3 - 4 (Baseline)						53.8	53.1		ASW MP 3 - FY13
ASW MP Annual Hardware Cost	44.9	15.3	5.1	3.0	15.7	53.8	53.1	0.0	
SUW MP QTY		1		1	1	1	1	2	
SUW MP 1	4.6	0.8	0.9						SUW MP 1 - FY08
SUW MP 2		5.4	2	3.4					SUW MP 2 - FY09
SUW MP 3			3.5	7.8	6.4				SUW MP 3 - FY11
SUW MP 4					18.0				SUW MP 4 - FY12
SUW MP 5 - 6 (Baseline)						19.7	21.9	49.6	SUW MP 5 - FY13
SUW MP Annual Hardware Cost	4.6	6.2	6.4	11.2	24.4	19.7	21.9	49.6	
MP Backfit		**FY07**	**FY08**	**FY09**	**FY10**	**FY11**	**FY12**	**FY13**	
AQS-20A Backfit QTY		1							
AQS-20A Cost		5.8							
RMMV w/Cradle Backfit QTY					2			1	
RMMV Cost					24.0			12.7	
OASIS Backfit QTY					1				
OASIS Cost					2.1				
Mission Package Annual Hardware Cost (RDT&E,OPN,WPN)		63.8	11.5	121.3	230.2	215.0	223.8	203.8	
Mission Package Computing Environment(MPCE) QTY		**2**		**3**	**3**	**3**	**3**	**2**	
MPCE Annual Budgeted Cost		1.2		1.9	1.9	1.9	2.6	1.3	
Other Program Costs: Program Management, MP Integration, T&E, Production Engineering; VTUAV OTHCP, ECP, NLOS Missiles (shipfill)		182.2	95.4	181.3	140.9	145.6	188.6	126.0	
Total Budgeted Costs		247.1	106.9	304.5	373	362.5	415.0	331.1	

***Figure 6 – Mission Package Procurement Synopsis with Budget Detail ($M)**

*Note: Figure 6 funding includes all MP OPN and WPN funding, and applicable Engineering EDM funding in RDT&E,N.

VIII. Conclusion

The LCS MP program provides the Fleet with a modular, focused mission capability to counter littoral mine, submarine and surface threats. It uses a phased development approach that introduces systems as they mature and provides the basis for the future insertion of new technologies. Funding is consistent with cost estimates and the procurement plan is aligned with the LCS Seaframe schedule.

APPENDIX

ABBREVIATIONS

ALMDS	Airborne Laser Mine Detection System
AMNS	Airborne Mine Neutralization System
ASW	Anti-Submarine Warfare
CAIV	Cost As Independent Variable
CDD	Capability Development Document
COBRA	Coastal Battlefield Reconnaissance & Analysis
EDM	Engineering Development Model
EMIO	Enhanced Maritime Interdiction Operations
LCS	Littoral Combat Ship
MCM	Mine Countermeasures
MM	Mission Module
MP	Mission Package
MPCE	Mission Package Computing Environment
NLOS-LS	Non Line Of Sight Launching System
OASIS	Organic Air and Surface Influence Sweep
PAM	Precision Attack Missile (PAM)
RAMICS	Rapid Airborne Mine Clearance System
RMMV	Remote Multi Mission Vehicle
SUW	Surface Warfare
USV	Unmanned Surface Vehicle

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 4 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

Senate Report 110-77, dated June 5, 2007, directed the Navy to assess and report on the feasibility of developing an automated personnel locator and monitoring system. Our Office of Naval Research is investigating this matter in accordance with the guidelines of the Senate report and we will submit it to you within 90 days.

A similar letter has been sent to the Chairmen of the House and Senate Committee on Armed Services and the Chairman of the Senate Committee on Appropriations, Subcommittee on Defense.

Please do not hesitate to contact me if you have any further questions.

Sincerely,

Wayne Arny
Acting

Copy to:
The Honorable C. W. Bill Young
Minority Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 4 2008

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman:

Senate Report 110-77, dated June 5, 2007, directed the Navy to assess and report on the feasibility of developing an automated personnel locator and monitoring system. Our Office of Naval Research is investigating this matter in accordance with the guidelines of the Senate report and we will submit it to you within 90 days.

A similar letter has been sent to the Chairmen of the House and Senate Committee on Armed Services and the Chairman of the House Committee on Appropriations, Subcommittee on Defense.

Please do not hesitate to contact me if you have any further questions.

Sincerely,

Wayne Arny
Acting

Copy to:
The Honorable Ted Stevens
Minority Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 4 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

Senate Report 110-77, dated June 5, 2007, directed the Navy to assess and report on the feasibility of developing an automated personnel locator and monitoring system. Our Office of Naval Research is investigating this matter in accordance with the guidelines of the Senate report and we will submit it to you within 90 days.

A similar letter has been sent to the Chairman of the Senate Committee on Armed Services and the Chairmen of the House and Senate Committee on Appropriations, Subcommittee on Defense.

Please do not hesitate to contact me if you have any further questions.

Sincerely,

Wayne Arny
Acting

Copy to:
The Honorable Duncan Hunter
Minority Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 4 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman:

Senate Report 110-77, dated June 5, 2007, directed the Navy to assess and report on the feasibility of developing an automated personnel locator and monitoring system. Our Office of Naval Research is investigating this matter in accordance with the guidelines of the Senate report and we will submit it to you within 90 days.

A similar letter has been sent to the Chairman of the House Committee on Armed Services and the Chairmen of the House and Senate Committee on Appropriations, Subcommittee on Defense.

Please do not hesitate to contact me if you have any further questions.

Sincerely,

Wayne Arny
Acting

Copy to:
The Honorable John McCain
Minority Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 04 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides an independent assessment of the Marine Corps acquisition of the Ground /Air Task Oriented Radar (G/ATOR) system.

Specifically, the report addresses the Marine Corps requirements for weapons engagement, the phasing for the planned system increments, and the technical and program management resources available to the G/ATOR program.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 0 4 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides an independent assessment of the Marine Corps acquisition of the Ground /Air Task Oriented Radar (G/ATOR) system.

Specifically, the report addresses the Marine Corps requirements for weapons engagement, the phasing for the planned system increments, and the technical and program management resources available to the G/ATOR program.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 04 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides an independent assessment of the Marine Corps acquisition of the Ground /Air Task Oriented Radar (G/ATOR) system.

Specifically, the report addresses the Marine Corps requirements for weapons engagement, the phasing for the planned system increments, and the technical and program management resources available to the G/ATOR program.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 0 4 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides an independent assessment of the Marine Corps acquisition of the Ground /Air Task Oriented Radar (G/ATOR) system.

Specifically, the report addresses the Marine Corps requirements for weapons engagement, the phasing for the planned system increments, and the technical and program management resources available to the G/ATOR program.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

REPORT TO CONGRESS

ON

GROUND/AIR TASK ORIENTED RADAR (G/ATOR)

Prepared by:
Program Executive Officer
Land Systems
2203 Lester Avenue
Quantico, VA 22134-6050

February 2007

Section		Page
I	Background	2
II	Executive Summary	2
III	Requirements For Weapons Engagement	3
IV	Sufficiency of S-Band Design	4
V	Incremental Development	5
VI	Manning/Resources	6
VII	Report Preparation	7
VIII	Conclusions	7
IX	Recommendations	7
APPENDIX A	Abbreviations	8

I. BACKGROUND

The Senate Armed Services Committee Report 110-77 "directs the Secretary of the Navy to conduct an independent assessment, and submit a report to the Congressional Defense Committees, with the fiscal year 2009 budget request on the Marine Corps acquisition of the Ground/Air Task Oriented Radar (G/ATOR) to address: (1) the Marine Corps requirement for weapons engagement, and verify that the planned S-band radar design will support that requirement; (2) an assessment of the phasing for planned increments, recognizing that the Marine Corps does not yet have a defined weapons engagement requirement (other than cueing of terminal weapons such as Stinger); and (3) an examination of the technical and program management resources needed to effectively execute this complex state-of-the-art development program."

In response to the Senate report, the Marine Corps initiated an independent technical assessment of the G/ATOR program. Naval Surface Warfare Center, Dahlgren Division (NSWC/DD) examined weapons engagement requirements, S-band performance and G/ATOR increment phasing through a rigorous Independent Assessment Team (IAT). Dayton Aerospace Incorporated (DAI) and ICF International assessed the program's technical and management resources.

II. EXECUTIVE SUMMARY

There are valid requirements for weapons engagement contained in Air Defense Mission Needs Statements (MNS), Operational Requirements Documents (ORD) and Capability Development Documents (CDD). The requirements identified in these documents support key warfighting concepts such as Seapower 21, Operational Maneuver From The Sea and Ship To Objective Maneuver. The Marine Corps is in the process of drafting a weapons replacement Initial Capabilities Document (ICD) to define weapon engagement requirements, describe the supporting concept of operations and outline the gap analysis.

The IAT identified nothing inherent in S-band nor specific to the G/ATOR proposed design that would inhibit the system from meeting the requirements in the foregoing documents. S-band is a reasonable and appropriate choice to fulfill the air surveillance, air defense, air traffic control, and weapons support requirements identified in the Multi-Role Radar System (MRRS) Analysis of Alternatives (AoA).

The IAT also concluded that the G/ATOR phasing plan supported operational requirements resulting from the retirement of five radar systems. G/ATOR's S-band design meets or exceeds the functionality and performance capabilities of these legacy systems.

The DAI study confirmed the Program Office's current authorized level of sixty-five personnel, which is consistent with the Program Manager's estimate, and that the G/ATOR program is undermanned by 7.7%, or five personnel. At the time of the study, there were five vacancies in the Program Office, two of which have been filled. The remaining positions are temporarily staffed with support contractor personnel pending permanent fills.

III. REQUIREMENTS FOR WEAPONS ENGAGEMENT

While there is no overarching ICD for weapons engagement, there are valid requirements identified in recent Joint Capability Assessments, Air Defense MNS as well as ORDs and CDDs for the MRRS, and the Complementary Low Altitude Weapons System (CLAWS).

The Fiscal Year (FY) 2008 Force Protection and Fires gap analyses identified several key weapons engagement capability gaps. The Force Protection analysis highlighted gaps in Anti-Air Warfare and Point-Defense which required a Short Range Air Defense (SHORAD). G/ATOR was specifically identified as the program of record addressing this need.

Required Weapons Engagement capabilities are identified in the 1992 Advanced Low Altitude Air Defense MNS and the 1993 Mobile Surface-to-Air Missile System MNS. These documents highlight the need to detect, classify and engage missile and aircraft threats. These MNS provided the basis for development of several programs such as CLAWS and MRRS.

The MRRS ORD holds the radar requirements for the air surveillance and air defense missions. The requirements in the MRRS ORD are the result of combining the capabilities of five radars scheduled for replacement covering four mission areas. Although not specifically identified as engagement support requirements, the MRRS ORD requirements support engagements for the four mission areas.

The first mission area covered by MRRS is Air Surveillance, where the radar tracks airborne targets for cueing to an interceptor. The AN/TPS-63 currently performs this mission and its coverage, accuracy, and detection range capabilities provide the basis for the associated Key Performance Parameters (KPPs) in the MRRS ORD.

The second mission area is Air Defense, where the radar is required to track airborne targets and support handover to a surface-launched weapon for engagement. The AN/UPS-3 and AN/MPQ-62 performed this mission with the Stinger and Avenger weapon systems, but have been retired. The MRRS ORD was written to capture the radar-related scan rate and tracking accuracy capabilities. The MRRS ORD also adds the height dimension with equivalent accuracy to support the new CLAWS weapon system. The CLAWS ORD complements the MRRS ORD by stating associated weapon system requirements for air defense.

The third mission area is Air Traffic Control (ATC), which provides air traffic management around air fields and within air space controlled by friendly forces. The AN/TPS-73 currently performs this mission. The MRRS ORD captures the AN/TPS-73 coverage and tracking capabilities.

The MRRS ORD also contains interoperability and compatibility requirements regarding its association with CLAWS and the Marine Corps Composite Tracking Network (CTN).

Specifically:

- During forced-entry-type operations where enhanced protection is required, MRRS will provide direct support to CLAWS or SHORAD units via direct interface to current or future data links.
- MRRS shall be interoperable with the Marine Corps CTN contributing node to provide accurate, real time fire control data to remote CLAWS and SHQRAD units. In this configuration, MRRS can be deployed independent of command and control systems.

The CLAWS ORD specifies surface-to-air weapon requirements for the weapon including: mobility, rapid emplacement and displacement, employment under the Common Aviation Command and Control System (CAC2S), electronic protection, integrated Combat Identification (CID) information, reaction time, reliability, availability, missile performance requirements, including active seeker, capability to engage Type I and Type II cruise missiles, single shot probability of kill, operator-initiated command destruct, and the capability for external cueing.

The fourth mission area is Ground Weapons Locating, currently provided by the AN/TPQ-46A with anticipated upgrades. Since the MRRS ORD's approval, additional requirements for MRRS' Ground Weapons Locating Radar (GWLR) capability were identified. The Fires and Maneuver analysis revealed additional gaps in target acquisition and counterfire/targeting.

The GWLR CDD, an annex to the MRRS ORD, specifies radar performances for the GWLR mission, including: coverage, detection ranges, target classification, probability of location (acquisition), hostile weapon location circular error probable, projectile impact point prediction, location rate, cueing, and false report rate, among others. These new requirements are part of the GWLR CDD and capture the general coverage and detection performance capabilities of the AN/TPQ-46A.

Valid weapon engagement requirements for G/ATOR exist. These requirements can be traced from Joint Capability Gaps and mission needs to operational requirements and capability documents.

IV. SUFFICIENCY OF S-BAND DESIGN

The MRRS ORD identifies four KPP groups and fourteen individual KPPs related to weapons engagement. The S-band based G/ATOR system shows promise in meeting these parameters while providing optimal capability across a variety of operational missions.

The first KPP group addresses interoperability and compatibility and ensures that critical exchange requirements will be met. The second KPP group focuses on target detection in a variety of operational profiles. CID and mobility, deployability, and transportability comprise the third and fourth KPP groups respectively.

Interoperability and compatibility are key elements of the G/ATOR design. G/ATOR is poised to operate with multiple joint and Marine Corps systems including the Joint Strike Fighter and CLAWS. In this capacity, G/ATOR meets or exceeds the functionality and performance capabilities of the five legacy radars it replaces.

G/ATOR provides sufficient capability for target detection. The proposed S-band radar meets or exceeds weapons engagement requirements with the following exceptions noted by the IAT: (a) firm track coverage at some high elevation angles (identified through simulation) and (b) unrealizable firm track range at the lowest elevation (identified through simulation and confirmed in the proposal to be limited by physics). Under specific conditions, these shortfalls may result in a momentary delay in achieving firm track. Analysis indicates that a shift to an X-band design would provide marginal to no improvement in these extreme elevations. Minor design changes of the S-band system appear to be the most promising option to address the first shortfall. The recently completed Independent Assessment and MRRS AoA validated that the S-band design is a reasonable and appropriate choice to meet all MRRS target detection requirements for the air surveillance, air defense, ATC, and weapons support mission areas.

The G/ATOR design provides Identification Friend or Foe (IFF) compatibility that meets combat identification KPPs. The first increment of the G/ATOR system supports IFF Modes 1, 2, 3, 4, and C. The third G/ATOR increment is scheduled to add coverage for IFF Modes 5 and S. In addition to providing an IFF capability, the systems waveforms and inherent signal processing allow collection and comparison of signature data for non-cooperative targets. The generation, reception, and communication of data provided through these radar modes satisfy the basic KPP requirement for incorporating Non-Cooperative Target Recognition (NCTR) technology within the radar design.

G/ATOR is currently designed to meet mobility, deployability and transportability KPPs. However, the system design provides a relatively small (2 percent) weight margin and presents a significant risk given the immaturity of the proposed antenna design. Recent initiatives to employ the system from Up-Armored High Mobility Multi-purpose Wheeled Vehicles (HMMWV)eliminates this margin and results in a design that may not meet some key system attributes. Additional efforts are in progress to address the risk in this area.

V. INCREMENTAL DEVELOPMENT

The phasing of G/ATOR Increments is properly aligned with the planned divestiture of five radar systems that G/ATOR will replace. The phasing plan also provides the functionality to fulfill the interoperability requirements that enable weapon engagement capabilities.

The G/ATOR provides adequate phasing increments to fulfill gaps resulting from retiring legacy radars. Increment I replaces three radars: AN/TPS-63, AN/UPS-3, and the AN/MPQ-62 providing air surveillance and SHORAD capabilities. The AN/UPS-3 and AN/MPQ-62 are already retired and the AN/TPS-63 will be sustained until replaced by G/ATOR. Increment II provides the GWLR mission and replaces the AN/TPQ-46A. Increment III will provide NCTR, CTN, Integrated Architecture Behavior Model (IABM) upgrades and advanced Electronic

Counter-Counter Measure capabilities. Increment IV will provide ATC and replace the AN/TPS-73. In its aviation radar roles, G/ATOR Increments I, III, and IV will be employed by the Marine Air Control Squadron to directly support the execution of the six functions of Marine Aviation by providing precise airborne target information. In its ground radar role, G/ATOR Increment II will be employed by the Headquarters Battery of the artillery regiment in direct support of artillery battalions for precision registration and hostile weapon location.

G/ATOR provides appropriate phasing increments to fulfill the interoperability requirements that enable the engagement capabilities. Increment I has provisions for the transfer of information and data to and from the CAC2S, CTN, and SHORAD systems. Increment II provides connectivity with the Advanced Field Artillery Tactical Data System. G/ATOR will integrate IABM in increment III. Increment IV provides ATC interface.

This phasing plan is consistent with the operational requirements contained in related MNS, ORDs, CDDs, and the Weapons Replacement ICD that is being developed by the Marine Corps. G/ATOR tracking data provides the required accuracy and timeliness to support SHORAD by cueing available joint/coalition weapons assets via existing command and control and weapons systems (e.g., Standard Missile - 6 via CTN/Cooperative Engagement System, Patriot/SLAMRAAM via Link - 16).

VI. MANNING/RESOURCES

An independent assessment by DAI and a recently completed study by ICF International assessed that the G/ATOR Program Office is authorized sufficient personnel and management resources. While a few of the billets are filled with temporary support contractors, efforts are underway to fill these positions with permanent government employees in the near term.

On September 26, 2007, the Marine Corps Systems Command (MCSC) notified the Assistant Secretary of the Navy (Research, Development and Acquisition), via COMMARCORSYSCOM letter 5000/SG 06, that in order to evaluate the sufficiency of staffing levels to meet Marine Corps acquisition requirements, a study was conducted by ICF International to assess current and projected workload and staffing needs to support MCSC, PEO Land Systems, and the full range of Acquisition Category I through IV acquisition programs. The study identified a need for staffing increases in Contract Specialists, General Electronic Engineers, and Logistics Managers. Based on the results of the study, MCSC is pursuing additional authorizations to be added to its Quantico end strengths incrementally from Fiscal Years 2009 – 2011. The results of the MCSC study were based upon benchmarking against other Department of Defense organizations with mission responsibilities similar to MCSC.

DAI conducted a "Manpower/Staffing Study" in July 2007 using the Sustainment and Acquisition Composite Model (SACOM) Program Office manpower model. At that time, the SACOM model revealed:

- G/ATOR's authorized manning (65) was valid and consistent with the Program Manager's estimate.
- There are currently five (5) vacancies in the Program Office (two program analysts, one systems engineer, one business manager, and one logistician).

- The Program Office is geographically separated from its major technical support organization (NSWC/DD) and therefore additional matrix support from MCSC would be prudent. This finding was consistent with the results of the recently completed ICF International staffing study.
- The program benefits from three personnel acting as liaisons between the program, NSWC/DD and other organizations.

Since the DAI study was conducted, two (2) of the Program Office vacancies have been filled (one program analyst and one business manager).

VII. REPORT PREPARATION

This report was prepared using the October 19, 2007 NSWC/DD G/ATOR Independent Assessment Final Report; the August 5, 2007 Dayton Aerospace, Inc. Manpower/Staffing Study of PEO Land Systems; and a August 20, 2007, ICF International Marine Corps Acquisition Workforce Health Study.

VIII. CONCLUSIONS

The G/ATOR system design provides optimal capability across a wide variety of operational mission profiles. The system is properly phased to provide the necessary air defense capabilities to Joint forces with performance that exceeds that of the five legacy systems it replaces. With the exception of a few gapped government and matrix support billets, the Program Office is adequately manned to execute this demanding program.

IX. RECOMMENDATIONS

1. Continue analysis of G/ATOR mobility requirements to reduce the risk associated with the systems weight margin and potential to operate from up-armored HMMWVs.
2. Continue development of an overarching Weapons Replacement ICD that will cover weapons engagement requirements.
3. Continue design analysis and tradeoff studies to address possible shortfalls in target detection at extreme elevations.
4. Continue efforts to fill all authorized Program Office billets with permanent government employees.

APPENDIX A

ABBREVIATIONS

AoA	Analysis of Alternatives
ATC	Air Traffic Control
CAC2S	Common Aviation and Command and Control System
CDD	Capability Development Document
CID	Combat Identification
CLAWS	Complementary Low Altitude Weapons System
CTN	Composite Tracking Network
DAI	Dayton Aerospace Incorporated
FY	Fiscal Year
G/ATOR	Ground/Air Task Oriented Radar
GWLR	Ground Weapons Locating Radar
HMMWV	High Mobility Multi-purpose Wheeled Vehicle
IABM	Integrated Architecture Behavior Model
IAT	Independent Assessment Team
ICD	Initial Capabilities Document
IFF	Identification Friend or Foe
KPP	Key Performance Parameter
MCSC	Marine Corps Systems Command
MNS	Mission Need Statement
MRRS	Multi-Role Radar System
NCTR	Non-Cooperative Target Recognition
NSWC/DD	Naval Surface Warfare Center, Dahlgren Division
ORD	Operational Requirements Document
SACOM	Sustainment and Acquisition Composite Model
SHORAD	Short Range Air Defense

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As required by Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels, and certification that both the budget for that fiscal year and the Future Years Defense Plan (FYDP) funds this plan.

The enclosed Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2009 details the construction of combatant and support vessels over the next 30 fiscal years. Funding in the FY 2009 budget and the current FYDP supports this plan.

The FY 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to include an addendum providing the hull numbers and planned disposition of ships that are to be dismantled, sunk, or decommissioned in the FYDP, along with resulting gaps in capability that may occur upon the decommissioning of each ship. An addendum outlining the requested information is provided accordingly.

The Department of the Navy (DON) is retaining ships in active service as long as practicable to reduce recapitalization requirements, while maintaining effectiveness across the spectrum of critical naval missions. Additionally, DON is continuing actions to reduce the cost of building ships. As an example, the VIRGINIA Class cost reduction effort is still on track to meet its $400 million cost reduction goal (FY 2005 dollars) by FY 2012.

I would like to highlight two future issues facing the Navy. First, the Milestone A decision planned for CG(X) in 2008, will consider nuclear propulsion among the options. The results of this decision will be reflected in our FY 2010 report. The second is the cost of recapitalizing the OHIO Class SSBN, which requires lead ship procurement in FY 2019. Its cost will have a profound impact on the Navy's ability to maintain a balanced shipbuilding plan if special funding for this important national strategic capability is not provided.

A similar letter has been sent to Chairmen Inouye, Murtha, and Skelton. As always, if I can be of further assistance, please let me know.

Sincerely,



Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As required by Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels, and certification that both the budget for that fiscal year and the Future Years Defense Plan (FYDP) funds this plan.

The enclosed Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2009 details the construction of combatant and support vessels over the next 30 fiscal years. Funding in the FY 2009 budget and the current FYDP supports this plan.

The FY 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to include an addendum providing the hull numbers and planned disposition of ships that are to be dismantled, sunk, or decommissioned in the FYDP, along with resulting gaps in capability that may occur upon the decommissioning of each ship. An addendum outlining the requested information is provided accordingly.

The Department of the Navy (DON) is retaining ships in active service as long as practicable to reduce recapitalization requirements, while maintaining effectiveness across the spectrum of critical naval missions. Additionally, DON is continuing actions to reduce the cost of building ships. As an example, the VIRGINIA Class cost reduction effort is still on track to meet its $400 million cost reduction goal (FY 2005 dollars) by FY 2012.

I would like to highlight two future issues facing the Navy. First, the Milestone A decision planned for CG(X) in 2008, will consider nuclear propulsion among the options. The results of this decision will be reflected in our FY 2010 report. The second is the cost of recapitalizing the OHIO Class SSBN, which requires lead ship procurement in FY 2019. Its cost will have a profound impact on the Navy's ability to maintain a balanced shipbuilding plan if special funding for this important national strategic capability is not provided.

A similar letter has been sent to Chairmen Inouye, Murtha, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable John Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As required by Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels, and certification that both the budget for that fiscal year and the Future Years Defense Plan (FYDP) funds this plan.

The enclosed Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2009 details the construction of combatant and support vessels over the next 30 fiscal years. Funding in the FY 2009 budget and the current FYDP supports this plan.

The FY 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to include an addendum providing the hull numbers and planned disposition of ships that are to be dismantled, sunk, or decommissioned in the FYDP, along with resulting gaps in capability that may occur upon the decommissioning of each ship. An addendum outlining the requested information is provided accordingly.

The Department of the Navy (DON) is retaining ships in active service as long as practicable to reduce recapitalization requirements, while maintaining effectiveness across the spectrum of critical naval missions. Additionally, DON is continuing actions to reduce the cost of building ships. As an example, the VIRGINIA Class cost reduction effort is still on track to meet its $400 million cost reduction goal (FY 2005 dollars) by FY 2012.

I would like to highlight two future issues facing the Navy. First, the Milestone A decision planned for CG(X) in 2008, will consider nuclear propulsion among the options. The results of this decision will be reflected in our FY 2010 report. The second is the cost of recapitalizing the OHIO Class SSBN, which requires lead ship procurement in FY 2019. Its cost will have a profound impact on the Navy's ability to maintain a balanced shipbuilding plan if special funding for this important national strategic capability is not provided.

A similar letter has been sent to Chairmen Inouye, Skelton, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As required by Section 231 of Title 10, United States Code, the Secretary of Defense is required to submit with the Defense Budget an annual long-range plan for the construction of Naval vessels, and certification that both the budget for that fiscal year and the Future Years Defense Plan (FYDP) funds this plan.

The enclosed Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year (FY) 2009 details the construction of combatant and support vessels over the next 30 fiscal years. Funding in the FY 2009 budget and the current FYDP supports this plan.

The FY 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to include an addendum providing the hull numbers and planned disposition of ships that are to be dismantled, sunk, or decommissioned in the FYDP, along with resulting gaps in capability that may occur upon the decommissioning of each ship. An addendum outlining the requested information is provided accordingly.

The Department of the Navy (DON) is retaining ships in active service as long as practicable to reduce recapitalization requirements, while maintaining effectiveness across the spectrum of critical naval missions. Additionally, DON is continuing actions to reduce the cost of building ships. As an example, the VIRGINIA Class cost reduction effort is still on track to meet its $400 million cost reduction goal (FY 2005 dollars) by FY 2012.

I would like to highlight two future issues facing the Navy. First, the Milestone A decision planned for CG(X) in 2008, will consider nuclear propulsion among the options. The results of this decision will be reflected in our FY 2010 report. The second is the cost of recapitalizing the OHIO Class SSBN, which requires lead ship procurement in FY 2019. Its cost will have a profound impact on the Navy's ability to maintain a balanced shipbuilding plan if special funding for this important national strategic capability is not provided.

A similar letter has been sent to Chairmen Skelton, Murtha, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Member

Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2009

Prepared by:
Director, Warfare Integration (OPNAV N8F)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

February 2008

Annual Long-Range Plan for Construction of Naval Vessels for FY 2009

I. Reporting Requirement

This report is submitted in accordance with Chapter 9, Section 231 of Title 10 United States Code, which requires the Secretary of Defense to submit with the Defense Budget, an annual long-range plan for the construction of naval vessels that includes the following:

> (a) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN AND CERTIFICATION – The Secretary of Defense shall include with the defense budget materials for a fiscal year:
>
> > (1) A plan for the construction of combatant and support vessels for the Navy developed in accordance with this section; and
> >
> > (2) A certification by the Secretary that both the budget for that fiscal year and the future-years defense program provide for funding of the construction of naval vessels at a level that is sufficient for the procurement of the vessels provided for in the plan.
>
> (b) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN – Each such naval vessel construction plan shall contain the following:
>
> > (1) A detailed program for the construction of combatant and support vessels for the Navy over the next 30 fiscal years.
> >
> > (2) A description of the necessary naval vessel force structure to meet the requirements of the national security strategy of the United States or the most recent Quadrennial Defense Review (*QDR*).
> >
> > (3) The estimated levels of annual funding necessary to carry out the program, together with a discussion of the procurement strategies on which such estimated levels of annual funding are based.
>
> (c) ASSESSMENT WHEN VESSEL CONSTRUCTION BUDGET IS INSUFFICIENT TO MEET APPLICABLE REQUIREMENTS – If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is not sufficient to sustain the naval vessel force structure specified in the naval vessel construction plan for that fiscal year under subsection (a), the Secretary shall include an assessment that describes and discusses the risks associated with the reduced force structure of naval vessels that will result from funding naval vessel construction at such a level.

Additionally, the Senate Armed Services Committee has requested an addendum to this report that addresses the Navy's plans for decommissioning ships during the Future Years Defense Plan. Accordingly, the Navy has added the following information to this report:

> *(i) hull numbers of ships that are to be disposed by dismantling or sinking within the future-years defense plan; (ii) hull numbers of ships that are to be decommissioned within the future-years defense plan; (iii) gaps in capability that will occur upon the decommissioning of each ship, including duration of that capability gap; and (iv) disposition proposed for each ship upon decommissioning.*

II. Submission of the Report

The Navy's Fiscal Year (FY) 2009 report reflects the capabilities needed to meet the challenges the nation faces with a reasonable degree of risk. The Chief of Naval Operations has stated that the Navy's 313-ship force structure represents a floor – the minimum number of ships the Navy should maintain in its inventory to provide the global reach; persistent presence; and strategic, operational, and tactical effects expected of Navy forces.

III. Background

The Navy faces many challenges in procuring a force that will be effective over the broad spectrum of naval missions anticipated in the coming decades. At the same time, escalating shipbuilding costs demand that the Navy procure only those ships that are necessary to accomplish critical missions, with the minimum essential capabilities, and in the most efficient and cost effective manner possible. The following sections outline the key factors that the Navy considered in developing its 30-year shipbuilding plan.

The complex configuration and size of naval vessels results in design times that range from two to seven or more years. Similarly, construction time can span up to eight years, and acquisition costs range from hundreds of millions to billions of dollars. Given the capital investment required, principal naval vessels are procured in relatively low numbers which can cause high and low cycles in annual budget requirements. Additionally, because of their size, propulsion plant type, and warfare systems, most Navy ships can only be constructed at a limited number of shipyards. This makes the timing of ship procurement a critical matter to the shipbuilding and combat system industries. Finally, ships' service lives can range from 20 years for smaller ships to 50 years for nuclear-powered aircraft carriers, mandating that ships be designed to accommodate capability upgrades throughout their time in service. Emerging and constantly improving threats drive new requirements. For instance, to ensure success in the Maritime Domain, a capability for Ballistic Missile Defense and full spectrum Anti-Submarine Warfare needs to be incorporated in our new classes of ships.

The Navy's legacy ships, some procured at a rate of four to five ships of a single class per year in the 1980s, are projected to retire during the next 30 years. With the high cost of new construction ships, the Navy cannot recapitalize its legacy ships at the same rate at which they were originally procured and maintain an affordable, balanced procurement plan. This dynamic causes fluctuations in force structure.

Since the Navy's shipbuilding plan spans a long period, it is divided into two phases, *Near-* and *Far-Term*, each with a fundamentally different focus and unique assumptions. A description of each follows:

- **Near-Term:** This period includes the current budget year, Future Years Defense Plan (FYDP), and FY 2014-2020. This phase addresses the Navy's transformation to a 21st Century fighting force with the introduction of several new ship designs, with the objective of minimizing adjustments to the plan in order to balance the mix of ships, unit costs, budgeted resources, and industrial base concerns. The requirements underpinning this balance are based on Defense-wide planning scenarios that are informed by intelligence assessments of future threats and operating environments. Given known ship capability and quantity requirements, the cost estimates are judged reasonably accurate inside the FYDP. The accuracy of the cost estimates diminishes in the FY 2014-2020 timeframe.

- **Far-Term**: This phase encompasses FY 2021 through FY 2038. The requirements during this period are not as well defined as those for the near-term. The number, types and capabilities of ships are estimated based on anticipated Joint and Navy warfighting requirements, and cost estimates are notional due to increasing uncertainty of business conditions affecting the shipbuilding industry. In this report, the far-term phase largely addresses the recapitalization of today's legacy ships.

Overall affordability of the shipbuilding plan remains a challenge if the Navy is to introduce required 21st Century capabilities and maintain the minimum essential force structure necessary to accomplish critical missions of a global Navy over the long term.

IV. Force Structure Requirement

A. Quadrennial Defense Review

The *FY 2006 Quadrennial Defense Review* (*QDR 06*) developed operational guidance for the national defense and national military strategies and for shaping the future force to address four priorities:

- Defeat terrorist extremists
- Defend the homeland in depth
- Shape the choices of countries at strategic crossroads
- Prevent hostile state and non-state actors from acquiring or using weapons of mass destruction

QDR 06 emphasizes the unique operational demands associated with homeland defense and the Global War on Terror (GWOT), and remains the twenty-year planning basis for the Department of Defense. It focuses on building a Joint portfolio of capabilities with global reach, capability, capacity, and flexibility that can concentrate military power for deterrence, dissuasion, and major combat operations. Additionally, *QDR 06* directs a transition from a force planning construct centered on global or major regional conflicts to one with more emphasis on GWOT and homeland defense - while maintaining the capability to prevail in major regional conflicts. The Navy's FY 2009 shipbuilding plan outlines the major ship construction investments necessary to support *QDR 06*.

B. Maritime Strategy

In October 2007, the Navy, Marine Corps, and Coast Guard issued a unified maritime strategy: *A Cooperative Strategy for 21st Century Seapower*. The new Maritime Strategy recognizes that the security, prosperity, and vital interests of the U.S. are increasingly linked to those of other nations by virtue of a global system comprised of interdependent networks of trade, finance, information, law, people, and governance. The Navy, in this context, must provide regionally concentrated, credible combat power and globally distributed mission-tailored maritime forces to achieve six key strategic imperatives:

- Limit regional conflict with forward deployed, decisive maritime power
- Deter major power wars
- Win our Nation's wars
- Contribute to homeland defense in depth
- Foster and sustain cooperative relationships with more international partners

- Prevent or contain local disruptions before they impact the global system

C. Force Structure

The 313-ship force structure shown in previous versions of this report was compliant with the *QDR 06* and *Strategic Planning Guidance*. In this President's Budget, the Navy has also considered the Maritime Strategy, and concluded that some adjustments should be made to this structure to accommodate essential changes in rotational, amphibious lift and intra-theater mobility requirements. No single mission area is disadvantaged in favor of any other to ensure that the Navy has the correct balance of carriers, submarines, cruisers, destroyers, amphibious and support ships to achieve the effects desired by the Combatant Commanders. However, the force structure depicted in this plan incurs risk in the following areas:

- Sourcing Carrier Strike Group (CSG) /Expeditionary Strike Group (ESG) demands for peacetime presence and warfighting response
- Ballistic Missile Defense
- Sea Shield (Theater Air and Missile Defense, Anti-Submarine Warfare) for CSG/ESG's
- Sourcing attack submarine (SSN) presence to approach Combatant Commanders' demand, and for Intelligence, Surveillance, and Reconnaissance (ISR).
- Meeting the stated Marine Corps Amphibious Lift Requirements
- Supporting the Long War/Global Maritime Security
- Providing a credible strategic deterrent force

Absent additional resources to procure, operate and maintain a larger fleet, the Navy will be compelled to accept the risk inherent in the current plan's minimum essential force structure. While in the main this plan achieves the necessary raw numbers of ships and sustains the shipbuilding industrial base, there are certain time periods where the ship mix, and therefore inherent capability of the force, varies from that required as a result of funding constraints and the timing of legacy fleet service life limits. The proposed force balances risk across mission areas with affordability, probability of need, and time required to recover should the future trend in an unexpected direction.

Table 1. Future Naval Force Structure (FY 2020)

Type/Class	313-Ship Force Structure
Aircraft Carriers	11
Surface Combatants	88
Littoral Combat Ships	55
Attack Submarines	48
Cruise Missile Submarines	4
Ballistic Missile Submarine	14
Amphibious Warfare Ships	31*
Combat Logistics Force Ships	30
Maritime Prepositioning Force (Future) Ships	12
Support Vessels	20

* Note: The DoN is reviewing options to increase assault echelon amphibious lift to 33 ships to meet USMC requirements.

V. Naval Vessel Construction Plan

Table 2 displays the Department of the Navy (DoN) new ship construction procurement and funding plans for FY 2009 and the Future Years Defense Plan (FYDP) as reflected in the FY 2009 President's Budget submission.

Table 2. FY 2009-2013 Shipbuilding Budget

											Total FY (09-13)	
Ship Type	**FY09**	**Qty**	**FY10**	**Qty**	**FY11**	**Qty**	**FY12**	**Qty**	**FY13**	**Qty**	**$ M**	**Qty**
CVN 21[1]	3,926		1,495		1,145		2,513	1	3,172		12,251	1
SSN 774[2]	3,424	1	3,952	1	5,294	2	4,753	2	4,957	2	22,380	8
DDG 1000	2,554	1	2,714	1	2,427	1	2,619	1	2,348	1	12,662	5
CG(X)					3,234	1			3,064	1	6,299	2
LPD 17[3]	103										103	
LCS[4]	920	2	1,380	3	1,380	3	1,840	4	2,760	6	8,280	18
T-AKE[5]	962	2									962	2
MPF(F)-LMSR[5]							1,149	1			1,149	1
MPF(F)- LHA(R)[5,6]	348		1,037	1	1,693				392		3,469	1
MPF(F)- MLP[5]			1,236	1			964	1	998	1	3,197	3
LCC-R[5]							1,924	1			1,924	1
JHSV[7]	175	1	174	1	182	1	188	1	195	1	914	5
Total New Construction	**12,412**	**7**	**11,988**	**8**	**15,355**	**8**	**15,951**	**12**	**17,886**	**12**	**73,591**	**47**

Notes:
1. In FY 2007 Congress provided Authorization to fund nuclear aircraft carrier procurement over a four-year period, which is reflected in the PB09 submission for CVN 78, lead ship of the CVN 21 class. This line item also funds advance procurement for CVN 79 and CVN 80.
2. Funding in FY 2009 - FY 2011 includes Economic Order Quantity funds for ships procured in FY 2010 - FY 2013. Funding in FY 2012 and FY 2013 includes advance procurement funds for submarines planned for procurement in FY 2014 and FY 2015.
3. Funding in FY 2009 represents program closeout costs.
4. Funding does not include LCS mission modules, which are funded in other Navy accounts.
5. Funded in National Defense Sealift Fund (NDSF).
6. Funding in FY2009 and FY2013 is advance procurement.
7. The JHSV Program is a joint Army and Navy program. Quantities reflect Navy procurement of 5 ships in FY 2009-2013.

VI. Long-Range Naval Vessel Construction Plan

The long-range naval vessel construction plan shown in Table 3 displays the projected procurement of 296 ships over the next 30 years, which is required to support the 313-ship minimum force structure outlined in Table 1. The following description of the plan is divided into near- and far-term phases to emphasize the fundamental differences in procurement during those periods.

Table 3. FY 2009-2038 Long-Range Naval Vessel Construction Plan

	Near Term												Far Term																	
Aircraft Carrier				1				1					1				1				1					1				1
Surface Combatant	1	1	2	1	2	1	2	2	2	2	2	2	2	2	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Littoral Combat Ships	2	3	3	4	6	6	6	6	6	6	4													1		2	5	5	5	5
Attack Submarines	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	1	2	1	2	1	2
Ballistic Missile Submarines										1				1		1	1	1	1	1	1	1	1	1	1					
Amphibious Warfare Ships							1	1	1		2			1	1	1		2		1	1	1		2		1	1	1		2
Combat Logistics Force	1								1		2	2	2	2	2	2	2				1		1	1	1					
Maritime Prepositioning Force (Future)	1	2		2	1	2	1																							
Support Vessels	1	1	1	2	1	2	2		1	1	1	2		2	3	2	2				1	1	1	1	1	1	1			

A. Near-Term Naval Vessel Construction Plans

- The near-term plan focuses on transformation of the Navy Force structure to address the warfighting requirements of the 21st Century. These transformational ships include DDG 1000, CG(X), LCS, SSN 774, T-AKE, MPF(F) MLP, MPF(F) LMSR, and JHSV.
- The Navy continues to move toward establishing a sustaining production rate for its ship classes to reduce funding peaks in the future. Sustaining production rates will supply new ships at the same rate at which legacy ships reach the end of their planned service lives and have been planned for aircraft carriers, attack submarines, and amphibious ships. Transition to a sustaining rate for other ships where appropriate is addressed in the far-term.
- The Department appreciates Congress' support in the FY 2007 National Defense Authorization Act to fund aircraft carriers over four years. This split funding permits more efficient use of resources and facilitates stability in other shipbuilding programs and the Navy has adopted it in the President's FY2009 budget submission.
- Regarding surface combatants, the planned procurement of the DDG 1000 class will be completed by FY 2013 with a total of seven ships. The CG(X) program procures its first ship in FY 2011 with follow-on construction in FY 2013. The FY 2008 National Defense Authorization Act requires all major combatant vessels of the United States Navy strike forces to be constructed with an integrated nuclear power plant, unless the Secretary of Defense determines this not to be in the best interest of the United States. A nuclear propulsion plant will add to the cost per unit. This increased cost is not included in the current budget. The Navy acknowledges that this statute applies to CG(X). Resulting requirements definition and acquisition plans, including schedule options and associated risks, are being evaluated in preparation for CG(X) Milestone A.
- Table 3 shows the Navy has integrated the changes to the Littoral Combat Ship procurement plan previously reported to Congress.
- The Navy increased procurement to two VIRGINIA class attack submarines per year starting in FY 2011 in an effort to reduce a future inventory shortfall.
- The Navy has delayed MPF(F) procurement ($14 billion) in order to resolve the concept of operations.
- There are two support ship changes. Analysis indicates the T-ATF service life can be extended to 40 years. This permits the Navy to delay starting procurement of the T-ATF replacements until FY 2015. Additionally, beginning in FY 2009, the Navy plans to procure a total of seven Joint High Speed Vessels (JHSV) at a rate of one ship per year to meet Combatant Commanders' demands for intra-theater lift and Theater Security Cooperation support.

B. Far-Term Naval Vessel Construction Plans

- The far-term plan focuses on recapitalizing the Navy's legacy ship inventory. In the period from FY 2021 to 2038, 165 ships will reach the end of their expected service lives – twice the number planned for retirement during the near-term phase. The Navy must manage meticulously the service lives and modernization of legacy ships during this period to prevent block obsolescence from causing unacceptable gaps in capability and capacity. Starting procurement of the next generation ships earlier than might otherwise be needed is an imperative to level the replacement

profile. In the far-term phase, about thirty percent more ships must be procured than in the near-term phase. This procurement, combined with the required sustaining-rate replacement of aircraft carriers, attack submarines and amphibious assault ships, will provide a more stable demand on industry and prevent this cyclic problem from recurring again in the future

- The replacement program for the OHIO class Ballistic Missile submarines is a strategic issue that merits immediate attention. Absent additional resources to recapitalize this national strategic capability, the Navy will be unable to concurrently replace the existing OHIO class submarines and the balance of its force structure requirements in accordance with this shipbuilding plan. In the interim, the Navy will continue to work with US Strategic Command to complete the requirements analyses and systems studies necessary to define the replacement program.

- Plans for recapitalization of the OHIO class submarines that have been converted to SSGN have been deferred until their warfighting utility can be assessed. Should their replacement be required, it will be necessary to integrate their procurement with other ship and submarine recapitalization efforts planned for the post-FY 2020 period.

- Amphibious ship procurement will transition to a sustaining rate in FY 2016, ultimately encompassing a single ship type that will replace today's LSD 41 and LPD 17 classes.

VII. 30-Year Naval Force Size

The 30-year shipbuilding construction plan presented above results in the projected ship inventory shown in Table 4 below. The total inventory of battle force ships and numbers of each type of ship will vary from year to year as a result of the complex relationship between retirements, procurement, affordability, design and construction times, industrial base capacity, warfighting priorities and service life limits of the legacy fleet. The projected numbers of ships in active service shown below are counted as of the end of each fiscal year.

Table 4. FY 2009-2038 Naval Battle Force Inventory

	Near Term												Far Term																	
Aircraft Carrier	11	11	11	11	10	10	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Surface Combatant	109	111	113	110	107	99	94	92	92	93	93	94	95	94	94	94	93	91	91	89	91	94	96	99	101	100	98	95	94	94
Littoral Combat Ships	2	2	2	3	8	11	14	18	24	30	36	42	48	54	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Attack Submarines	53	52	52	53	54	51	51	49	50	49	50	48	48	47	47	46	45	44	43	41	41	42	44	45	47	49	50	52	53	53
Cruise Missile Submarines	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	1											
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	12	12	12	12	12	12	12	12	12
Amphibious Warfare Ships	31	32	34	34	33	33	33	33	33	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33	33	33	33	32
Combat Logistics Force	31	30	28	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Mine Warfare Ships	14	14	14	14	14	14	14	14	13	13	11	10	7	6	2	1														
Maritime Prepositioning Force (Future)					1	1	2	4	6	7	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Support Vessels	17	17	17	18	19	20	21	22	24	26	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

The following sections describe the operational implications of ship inventories outlined in Near- and Far-Term phases over the 30-year span of this report.

A. Near-Term Naval Battle Force Inventory

- The minimum aircraft carrier force level requirement remains at 11 ships. However, the Navy is seeking a Congressional waiver to decrease the carrier force to 10 operational carriers between the

inactivation of USS ENTERPRISE (CVN 65) in November 2012 and the delivery of GERALD R FORD (CVN 78) in September 2015. During this 33-month period, Navy will mitigate the operational impact of the shortfall through selective rescheduling of carrier maintenance availabilities and by applying the inherent flexibility of the Fleet Response Plan. This risk mitigation strategy will support presence and surge requirements during this short time period, although it is not sustainable over a long period of time.

- The Littoral Combat Ship procurement profile was adjusted based on a program assessment following LCS-1 and LCS-2 cost increases. Although this assessment resulted in the removal of 13 ships from the FY 2008 President's Budget FYDP, the plan continues procurement to reach the objective of 55 ships by FY 2023.
- New T-AKE ships will replace the aging combat cargo and ammunition ships (T-AFS and T-AE) by FY 2012. This will complete the Navy's transition to a three ship-type combat logistics force, which will improve the overall effectiveness of operational fleet support. The Navy has committed to procure the minimum number of T-AKEs necessary to meet the Combat Logistic Force (CLF) requirement, currently assessed to be 12 T-AKEs. When MPF(F) T-AKE assets are considered in logistics planning for major combat operations, the CLF requirement drops to 11 T-AKEs, enabling the transfer of the 12th CLF T-AKE to the MPF(F).
- Ultimately, the 14-ship MPF(F) squadron will preposition the equipment and supplies of a planned FY 2015 Marine Expeditionary Brigade and will be capable of conducting at sea arrival and assembly operations to combat configure, employ, deliver and sustain Joint forces from over the horizon. MPF(F) ships will also meet Combatant Commander tasking for Theater Security Cooperation, disaster relief and other contingencies. The current budget does not include the 13th or 14th T-AKEs required to meet the MPF(F) structure described above, pending completion of an ongoing MPF(F) concept of operations study. It is expected that the assessment will show that the MPF(F) will need these two T-AKEs .
- JHSV class ships will provide support for intra-theater lift and Theater Security Cooperation at a relatively low cost. Additionally, the inventory of T-AGOS ships has been increased to account for lower operational availability than anticipated which has increased the rotational requirements for this class.

B. Far-Term Naval Battle Force Inventory

- The demand for Aegis ships is expected to increase because of their BMD capability. Achieving full service life from CG 47 class ships, and performing additional maintenance to extend the service life of DDG 51 class ships, is imperative to reduce the impact of rapid post-FY 2020 retirements pending entry of sufficient DDG(X) class ships into active service. A single mid-life modernization is no longer adequate for CG 47 and DDG 51 class ships due to the evolving threat environment, mandating periodic updates to keep them effective and to sustain engineering plant capacity. The current CG and DDG modernization efforts are the foundation for this effort and will serve as the baseline for subsequent upgrades throughout the remainder of their service lives. The impact of extending the service life of DDG 51 class ships five years is reflected in Table 4.
- The Navy faces a shortfall in its attack submarine inventory from FY 2022 through FY 2033. The inventory will reach a minimum of 41 ships in FY 2028-2029. The Navy has identified a strategy to mitigate the impact of this shortfall to include the following: (a) reducing build time of Virginia class attack submarines to 60 months; (b) extending the service life of selected attack submarines based on

technical feasibility and affordability; and (c) extending, as needed, the length of attack submarine deployments from 6 to 7 months to meet operational requirements.

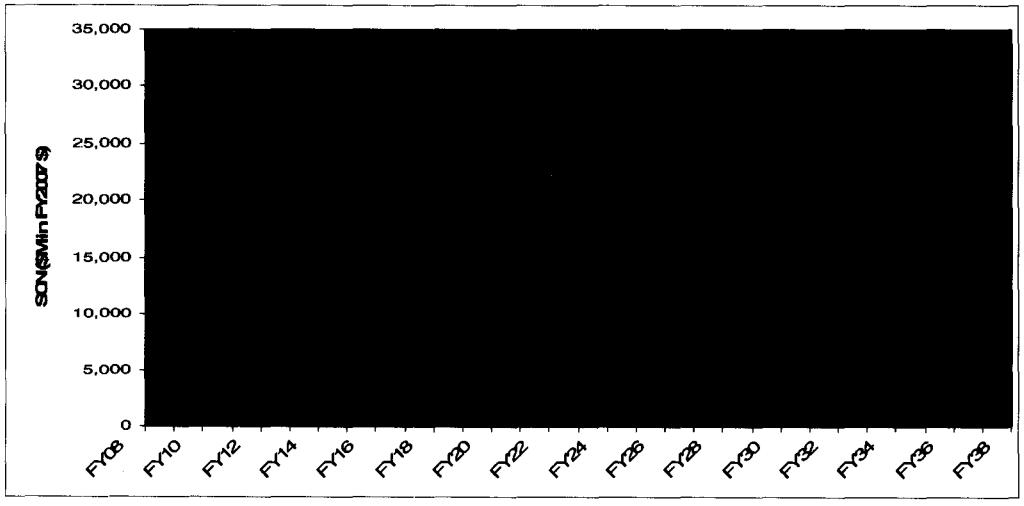
- OHIO class ballistic missile submarines start retiring in FY 2027, requiring construction of a replacement SSBN beginning in FY 2019. Any delay in construction will impact the Navy's ability to meet U.S. Strategic Command's (USSTRATCOM) Sea-Based Strategic Deterrent requirement.
- The Marine Corps requires sufficient Assault Echelon amphibious lift to support 2.0 Marine Expeditionary Brigades (MEB). MPF(F) will reinforce and support a 2.0 MEB Assault Echelon within a Marine Expeditionary Force-level operation by projecting a brigade and its associated support, and by providing the interface between operational and tactical logistics support from the Sea Base.
- Mine warfare ships will be replaced by Littoral Combat Ships configured with the mine warfare mission package. Legacy mine warfare ships will be phased out gradually by FY 2024.

VIII. Estimated Levels of Annual Funding Required for the Long-Range Shipbuilding Program

A. Overall

Figure 1 provides the estimated annual new construction funding requirements in FY 2007 dollars. The Navy recognizes that building the required force structure will largely depend on controlling shipbuilding costs (including combat systems) within an affordable range. This will require the combined efforts of the Navy, and the shipbuilding and combat systems industries. Working with Congress, the Navy is committed to procuring and sustaining the force structure necessary to deliver the effects expected of United States naval forces.

Figure 1. Annual Funding Required for Navy Long-Range Shipbuilding (FY 2009-2038)



Note:
This estimate shows funding required to support construction of the 313-ship minimum force structure over the period of the report. It does not include funding for SSBN recapitalization, CVN Refueling Complex Overhauls, SSBN/SSN Engineered Refueling Overhauls, other conversions, service life extension programs, small craft, or other costs associated with the Navy shipbuilding construction account. Per section VI.A., the estimate will be updated for FY 2010 based on CG(X) Milestone A decision, and in compliance with FY 2008 National Defense Authorization Act.

B. Near-Term Funding Requirements

The average steady-state annual shipbuilding funding required for achieving and sustaining the previous report's minimum 313-ship force structure was approximately $13.4 billion per year in FY 2005 dollars ($14.4 billion in FY 2007 dollars). The Navy's current cost estimate is affected in the near term by such factors as the FY 2006 Pension Protection Act, rising material costs, increasing labor rates, and the cost risk associated with developing and building new ship classes. Additionally, minimal first-tier shipbuilding capacity is devoted to commercial business, placing the overhead burden largely on Navy shipbuilding programs.

An additional complicating factor in ship procurement is the effect of the inflation rate experienced in the shipbuilding industrial sector compared to the Navy's budget. The shipbuilding industry's historical cost inflation rate is approximately 1.5 percent higher than the rate used by the Department of Defense to adjust the budget for year-to-year inflation. Consequently, the Navy's total obligation authority (TOA) has not paced the shipbuilding cost inflation rate. The net result of this mismatch is that resources available to support shipbuilding are eroding.

Accordingly, the Navy has revised the average steady-state annual shipbuilding funding requirement to $15.8 billion per year in FY 2007 dollars through the near-term period (through FY 2020). The $15.8 billion per year investment includes National Defense Sealift Funds (NDSF) and applies only to new construction battle force ships. It does not include funding for SSBN recapitalization, CVN Refueling Complex Overhauls, SSBN/SSN Engineered Refueling Overhauls, other conversions, service life extension programs, small craft, or other costs associated with the Navy shipbuilding construction account.

The Navy is experiencing some success in controlling and reducing shipbuilding costs. The VIRGINIA class SSN program is on track to reduce procurement cost by $400 million per ship (FY 2005 dollars) by FY 2012 through an aggressive cost reduction program. Program elements facilitating this success include increasing production to two submarines per year under multi-year procurement authority, improving construction performance, investing in capital improvements, and implementing design changes to reduce construction costs.

To better control requirements, the Navy's Requirements and Resources Review Board (R3B) and newly instituted acquisition governance process changes are effectively managing adjustments to top-line requirements after programs have been initiated. Future process improvements will exert executive level control over shipbuilding and combat systems technical authority actions which have a large impact on program cost.

C. Far-Term Funding Requirements

The majority of procurement planned beyond FY 2020 is focused on recapitalizing retiring ship classes. Dramatically increased funding is required just to maintain Navy force levels during the post-FY 2020 period, without including funding that may be required to replace retiring non-battle force Strategic Sealift ships. Many of the new replacement ships identified as part of the Navy's 30-year shipbuilding program have not been designed. Cost estimates for these ships will remain a rough order of magnitude until conceptual designs are completed and more accurate cost estimating methods can be applied.

The Navy is emphasizing repeat builds of ships within the same class to reduce new construction costs, provided required warfighting capabilities can be fielded using this approach. This permits longer production runs and resultant cost reductions associated with production improvements and economies of scale. The Navy's shipbuilding plans include incorporation of open architecture for hardware and software systems and increased use of systems modularity. In addition, the Navy is aggressively pursuing opportunities to incorporate standardized components to reduce logistics support costs. These

initiatives will reduce the cost of maintenance and system upgrades, and will facilitate keeping Navy ships in service longer.

The Navy will consider several industrial factors as it pursues operational capability at reduced cost. First, level loading of ship procurements to help sustain minimum employment levels and skill retention will promote a healthy U.S. shipbuilding industrial base. Further, to achieve affordability goals, Navy program managers will make greater use of contract incentives, such as steep share lines combined with performance incentives, multi-year procurement, fixed price contracts (when and where appropriate), and increased use of competition to contribute to real shipbuilding cost containment.

IX. Naval Vessel Construction Risk

Funding for the Navy's shipbuilding requirements meets the needs of the Department and fully funds those ships included in the FY 2009 President's Budget and the Future Years Defense Plan through FY 2013.

X. Summary

Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans, but the near-term shipbuilding plans have remained relatively stable. Although a larger force may reduce the significant major combat operations and Long War risks inherent in the 313-ship minimum force structure depicted, this plan represents an acceptable balance between capability, affordability, and the need to sustain the industrial base.

Full funding and support of this plan is crucial if the Navy is to maintain the minimum essential battleforce necessary to meet the maritime needs of the nation.

Addendum Report
Navy Plans for Decommissioning Ships during Future-Years Defense Plan (FYDP)

I. Introduction

This addendum report is in compliance with the Senate Armed Services Committee request for additional information regarding decommissioning and disposal of Naval vessels:

> *The Committee directs the Secretary of Defense to include, as an addendum to the annual report on the construction of naval vessels, commencing with submission of the report for fiscal year 2009, the future-years defense plan for the Navy's inactive ships. The addendum shall address: (i) hull numbers of ships that are to be disposed by dismantling or sinking within the future-years defense plan; (ii) hull numbers of ships that are to be decommissioned within the future-years defense plan; (iii) gaps in capability that will occur upon the decommissioning of each ship, including duration of that capability gap; and (iv) disposition proposed for each ship upon decommissioning.*

The Secretary of the Navy approves the change in status of all ships, active or inactive, of the United States Navy (including Military Sealift Command) upon recommendations made by the Chief of Naval Operations (CNO). Annually, the CNO reviews the proposed ship decommissioning and deactivation plans, and the composition of the inactive fleet and its material condition, to reassess the number of ships to be held in the various categories of readiness and their disposition if not required for retention.

When determining which ships will be decommissioned or deactivated, several factors are taken into consideration. Maintaining a ship in inventory involves operational cost, manning requirements, maintenance, and system upgrades to ensure the continued interoperability and operational effectiveness. The ship's operational history, including particularly demanding operations in harsh environmental conditions, often impacts its viable service life. Other factors, such as design changes or modifications made to the ship, or a design that is not amenable to a subsequent operational system upgrade, may make it infeasible to continue its service. Since ships operate over periods of decades, sometimes the operational mission of the ship becomes obsolete and there is no continued operational purpose for the ship. Under these conditions, it may sometimes be advantageous to retire a ship despite the Navy's desire to maintain its numbers and avoid recapitalization costs.

The Navy's methods to reduce the inventory of deactivated or decommissioned ships, in priority order, include interagency transfers to the Maritime Administration, United States Coast Guard (USCG) or other government agencies; donations for memorial/museum use by the public; foreign military sales (FMS) transfers; dismantling or scrapping; experimental use; or by sinking in conjunction with critical fleet training exercises, weapons effectiveness testing, or forming artificial reefs. Nuclear-powered ships are dismantled by a special recycling process. Select ships that have completed their useful service lives may be retained in the inactive fleet for a period of time to be available for future mobilization or while awaiting disposal. The longer a ship remains in the inactive fleet, the less likely it will be operationally useful in the future and the more costly its reactivation or disposal becomes.

Two decisions are associated with the disposal of Navy ships. First is the decision to decommission or deactivate the ship from active service, including striking it from the Naval Register. The second is to determine its disposition following its retirement. This report outlines the Navy's plans for ship decommissioning and deactivation within the Future Years Defense Plan (FYDP), and further identifies those ships that will be either sunk or dismantled/disposed of in the same period.

II. Ships planned for decommissioning or deactivation during the Future Years Defense Plan

Table 1 lists, by year, the Navy ships that are to be decommissioned or deactivated within the FYDP. The table identifies the planned disposition for each ship. The description of any potential gap in warfighting capability that might occur when the ship is removed from service is included in the discussion below the table.

Table 1. Ships Planned for Decommissioning or Deactivation[1] during the FYDP

2009	USNS SATURN	T-AFS 10	SINKEX
	USNS CONCORD	T-AFS 5	SINKEX
	USNS SAN JOSE	T-AFS 7	SINKEX
	USNS HAYES	TAG 195	SINKEX
	USS JUNEAU	LPD 10	Inactive Fleet
	USS NASHVILLE	LPD 13	Inactive Fleet
	USS TARAWA	LHA 1	Inactive Fleet
	USS KITTY HAWK	CV 63	Inactive Fleet
2010	USNS KILAUEA	T-AE 26	SINKEX
	USNS MOUNT BAKER	T-AE 34	SINKEX
	USS MCINERNEY	FFG 8	Foreign Military Sales
	USS LOS ANGELES	SSN 688	Dismantle
	USS PHILADELPHIA	SSN 690	Dismantle
2011	USNS FLINT	T-AE 32	SINKEX
	USNS KISKA	T-AE 35	SINKEX
	USNS SHASTA	T-AE 33	SINKEX
	USS MEMPHIS	SSN 691	Dismantle
2012	USS BOONE	FFG 28	Foreign Military Sales
	USS STEPHEN W GROVES	FFG 29	Foreign Military Sales
	USS JOHN L HALL	FFG 32	Foreign Military Sales
	USS DUBUQUE	LPD 8	Inactive Fleet
	USS CLEVELAND	LPD 7	Inactive Fleet
2013	USS JARRETT	FFG 33	Foreign Military Sales
	USS UNDERWOOD	FFG 36	Foreign Military Sales
	USS CROMMELIN	FFG 37	Foreign Military Sales
	USS DOYLE	FFG 39	Foreign Military Sales
	USS KLAKRING	FFG 42	Foreign Military Sales
	USS DENVER	LPD 9	Inactive Fleet
	USS ENTERPRISE	CVN 65	Dismantle

Note:
1. Military Sealift Command ships are not commissioned ships. They are deactivated when removed from active service.

A. Aircraft Carriers (CV/CVN)

To maintain as constant a force structure as possible, the delivery of new aircraft carriers is planned to coincide with the scheduled decommissioning of carriers reaching the end of their expected service lives. USS KITTY HAWK (CV 63) will be decommissioned in the Spring of 2009, after nearly 48 years of service, at roughly the same time the Navy expects to take delivery of the last NIMITZ-class carrier, GEORGE H W BUSH (CVN 77). This schedule maintains the carrier fleet at 11 operational ships through early FY 2013. However, the delivery of GERALD R FORD (CVN 78) in September 2015 does not align with the inactivation of USS ENTERPRISE (CVN 65) after 51 years of service in November 2012. The Navy is requesting a waiver from Congress to allow the carrier force structure to decline to 10 ships during this 33-month period. Recognizing that this short-term carrier gap will result in increased stress on the remaining carrier force, the Navy has developed a workable strategy; using

deployment cycle lengths, Fleet Response Plan variations, and rescheduled ship maintenance availabilities; to mitigate the operational impacts of a 10-carrier force. The Navy remains committed to an 11 carrier force.

B. Surface Combatants

The FFG 7 class reaches the end of its service life prior to FY 2020. During the period of this report, nine guided missile frigates of the FFG 7 class will be retired at the end of their useful service lives and, provided the Littoral Combat Ships join the fleet as planned, there will be no capability gap.

C. Submarines

With the planned inactivation of USS LOS ANGELES (SSN 688), USS PHILADELPHIA (SSN 690), and USS MEMPHIS (SSN 691) at the end of their planned 33-year service lives, the Navy will have the required numbers of nuclear attack submarines until FY 2022. These SSN 688 class submarines are being replaced by the construction of VIRGINIA class attack submarines. The retirement of these ships will not exacerbate the long-term shortfall in submarine strength since their service lives do not permit their extension beyond FY 2022.

D. Amphibious Ships

The Commandant of the Marine Corps has determined that a minimum of 33 amphibious ships is necessary to support their assault echelon lift requirements; specifically, he has requested a force of 11 aviation capable amphibious ships, 11 LPDs and 11 LSDs. The Chief of Naval Operations supports the Commandant's determination. All of the ships in these classes will retire after 41-45 years of service. This addendum report reflects the service life extension of 2 AUSTIN class LPDs to 45 years and 47 years respectively, and 2 TARAWA class LHAs to 43 years. While the mix of the 33 ships reflected in this plan differs slightly from the USMC requirement, it represents acceptable risk considering the amphibious ships planned for decommissioning are not scheduled for dismantling or sinking to permit mobilization at a later date if required. The decommissioning ships are being replaced with newer more capable LPD 17 and LHA 6 class ships. The Navy will maintain the 33-ship requirement for amphibious shipping through the FYDP while these new ships are integrated into the battleforce. Consequently, there will be no amphibious ship capability gaps through at least FY 2019.

E. Combat Logistics Force (CLF) Ships (T-AFS and T-AE)

Navy has evolved its combat logistics support operational concept to reduce CLF ship requirements to three types, including the Fast Combat Support Ship (T-AOE), Fleet Oiler (T-AO), and Dry Cargo/Ammunition Ship (T-AKE). The Navy plans to retire aging combat cargo and ammunition ships (T-AFS and T-AE) as the new construction T-AKE class ships join active service, thereby maintaining CLF force levels. T-AKE will continue to replace the aging legacy CLF ships through FY 2011. No capability gap will exist within the Combat Logistics Force.

F. Support Ships.

Only one support ship, USNS HAYES T-AG 195, is planned for retirement during this FYDP. This ship is not required to support the Navy's 313-ship minimum force structure requirement.

III. Ships planned for disposal during the Future Years Defense Plan

The Navy recognizes that environmental and safety risks increase as inactive ships deteriorate and their disposal is delayed. The longer retired ships sit in the inactive fleet, the higher the environmental risks

and disposal costs. The Navy's inventory of inactive ships has been reduced from a high of 195 ships in 1997 to 62 ships today.

As indicated earlier, ships not identified for disposal are retained for possible future mobilization, transfer to other government organizations, foreign military sales, logistics support, or donation for use as museums or for public display. When these options are not appropriate, the two primary means of disposal of inactive ships are either by dismantling or sinking. Dismantling is one of the more costly options involving a commercial ship dismantling yard. The process for dismantling nuclear-powered ships is considerably more complex than conventionally-powered ships and requires special disposal of the propulsion plant components. For nuclear ships, dismantling through a special recycling process is the only viable option. Disposal of conventionally-powered ships by sinking will usually be conducted as part of an approved training exercise or to support weapons testing requirements. Inactive ships contribute significantly to the Navy in this role, as these exercises often result in cost savings for developmental programs requiring live-fire testing, provide key learning necessary to improve fleet tactics and weapons design, and provide on-going statistical data to assess weapons performance. Another option for sinking may be to provide an ocean bottom artifact to support fish and marine growth as an artificial reef. In both cases the Navy complies strictly with the Environmental Protection Agency directives of 1996 and 1999.

Specific ship disposition plans are made at the annual Ship Disposition Review Conference. The Ship Disposition Review Conference provides a forum for evaluating operational risk, inventory requirements and other issues to ensure the best possible recommendations for ship disposition are provided to Navy leadership. The Navy establishes its ship disposition plans based on the methods available that are most advantageous to the government.

Table 2. Ships Planned for Disposal by Dismantling

Ex-PUGET SOUND	AD 38	Ex-ANCHORAGE	LSD 36
Ex-CORONADO	AGF 11	Ex-FORT FISHER	LSD 40
Ex-SIMON LAKE	AS 33	Ex-TROUT	SS 566
Ex-L Y SPEAR	AS 36	USS LOS ANGELES	SSN 688
Ex-MCKEE	AS 41	Ex-DRUM	SSN 677
Ex-YORKTOWN	CG 48	Ex-OMAHA	SSN 692
Ex-VINCENNES	CG 49	Ex-CINCINNATI	SSN 693
Ex-THOMAS S GATES	CG 51	Ex-NEW YORK CITY	SSN 696
Ex-INDEPENDENCE	CV 62	Ex-GROTON	SSN 694
Ex-CONSTELLATION	CV 64	Ex-BIRMINGHAM	SSN 695
Ex-AUSTIN	LPD 4	Ex-PHOENIX	SSN 702
Ex-NEW ORLEANS	LPH 11	Ex-BALTIMORE	SSN 704

The Navy will dismantle the ships listed in Table 2 within the FYDP. Specific dates have not been determined as several factors dictate when the ships will be put under contract for their scrapping or recycling in the case of nuclear-powered ships. With the exception of nuclear-powered ships, dismantling is the lowest priority for disposal of ships and is used when other options are not feasible. For nuclear ships the dismantling through a special recycling process is the only viable option. The actual date of dismantlement depends on such factors as the timing of decommissioning or deactivation, the location of the ship and attendant requirements for hull cleaning and transfer to the dismantlement

facility, time available to strip the ship of any salvageable Navy components, any special holds placed on ships while reconsidering dismantlement, and availability of disposal funds.

Table 3. Ships Planned for Disposal by Sinking

FY	SHIP NAME	HULL NO.
2009	Ex-ACADIA	AD 42
	Ex-CONOLLY	DD 979
	USNS HAYES	TAG 195
2010	USNS CONCORD	T-AFS 5
	USNS SAN JOSE	T-AFS 7
	USNS SPICA	T-AFS 9
	USNS NIAGARA FALLS	T-AFS 3
2011	USNS KILAUEA	T-AE 26
	USNS SATURN	T-AFS 10
2012	USNS FLINT	T-AE 32
	USNS SHASTA	T-AE 33
	USNS MOUNT BAKER	T-AE 34
	USNS KISKA	T-AE 35
TBD	Ex-FORRESTAL	AVT 59
TBD	Ex-ARTHUR W RADFORD	DD 968

Table 3 lists the ships that the Navy plans for disposal by sinking as part of fleet training exercises during FY 2009 – 2012. All of these ships will be at or beyond their expected service lives when disposal is completed. Ex-FORRESTAL and Ex-ARTHUR W RADFORD are candidates for sinking to become artificial reefs. Specific dates for these two will not be set until all the prerequisite requirements and authorizations are obtained, and plans are appropriately coordinated with other agencies and Congress.

IV. Summary

This addendum outlines the Navy's plans for retired or retiring ships developed as a result of an annual Ship Disposition Review conducted in December 2007. In developing this plan, the Navy's focus has been on maintaining its 313-ship minimum force structure, cost avoidance by ensuring each ship operates for its full service life, and ensuring ships that might be required for future mobilizations remain in reserve. During the FYDP, the Navy will retire 29 ships with various dispositions including retention, logistics support assets, foreign military sales, donations for public displays, dismantling, and sinking. The Navy plans to dismantle 24 ships and sink 15 ships that have no further use for the Navy.

Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2009

Prepared by:
Director, Warfare Integration (OPNAV N8F)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

February 2008

Annual Long-Range Plan for Construction of Naval Vessels for FY 2009

I. Reporting Requirement

This report is submitted in accordance with Chapter 9, Section 231 of Title 10 United States Code, which requires the Secretary of Defense to submit with the Defense Budget, an annual long-range plan for the construction of naval vessels that includes the following:

> (a) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN AND CERTIFICATION – The Secretary of Defense shall include with the defense budget materials for a fiscal year:
>
> > (1) A plan for the construction of combatant and support vessels for the Navy developed in accordance with this section; and
> >
> > (2) A certification by the Secretary that both the budget for that fiscal year and the future-years defense program provide for funding of the construction of naval vessels at a level that is sufficient for the procurement of the vessels provided for in the plan.
>
> (b) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN – Each such naval vessel construction plan shall contain the following:
>
> > (1) A detailed program for the construction of combatant and support vessels for the Navy over the next 30 fiscal years.
> >
> > (2) A description of the necessary naval vessel force structure to meet the requirements of the national security strategy of the United States or the most recent Quadrennial Defense Review (*QDR*).
> >
> > (3) The estimated levels of annual funding necessary to carry out the program, together with a discussion of the procurement strategies on which such estimated levels of annual funding are based.
>
> (c) ASSESSMENT WHEN VESSEL CONSTRUCTION BUDGET IS INSUFFICIENT TO MEET APPLICABLE REQUIREMENTS – If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is not sufficient to sustain the naval vessel force structure specified in the naval vessel construction plan for that fiscal year under subsection (a), the Secretary shall include an assessment that describes and discusses the risks associated with the reduced force structure of naval vessels that will result from funding naval vessel construction at such a level.

Additionally, the Senate Armed Services Committee has requested an addendum to this report that addresses the Navy's plans for decommissioning ships during the Future Years Defense Plan. Accordingly, the Navy has added the following information to this report:

> *(i) hull numbers of ships that are to be disposed by dismantling or sinking within the future-years defense plan; (ii) hull numbers of ships that are to be decommissioned within the future-years defense plan; (iii) gaps in capability that will occur upon the decommissioning of each ship, including duration of that capability gap; and (iv) disposition proposed for each ship upon decommissioning.*

II. Submission of the Report

The Navy's Fiscal Year (FY) 2009 report reflects the capabilities needed to meet the challenges the nation faces with a reasonable degree of risk. The Chief of Naval Operations has stated that the Navy's 313-ship force structure represents a floor – the minimum number of ships the Navy should maintain in its inventory to provide the global reach; persistent presence; and strategic, operational, and tactical effects expected of Navy forces.

III. Background

The Navy faces many challenges in procuring a force that will be effective over the broad spectrum of naval missions anticipated in the coming decades. At the same time, escalating shipbuilding costs demand that the Navy procure only those ships that are necessary to accomplish critical missions, with the minimum essential capabilities, and in the most efficient and cost effective manner possible. The following sections outline the key factors that the Navy considered in developing its 30-year shipbuilding plan.

The complex configuration and size of naval vessels results in design times that range from two to seven or more years. Similarly, construction time can span up to eight years, and acquisition costs range from hundreds of millions to billions of dollars. Given the capital investment required, principal naval vessels are procured in relatively low numbers which can cause high and low cycles in annual budget requirements. Additionally, because of their size, propulsion plant type, and warfare systems, most Navy ships can only be constructed at a limited number of shipyards. This makes the timing of ship procurement a critical matter to the shipbuilding and combat system industries. Finally, ships' service lives can range from 20 years for smaller ships to 50 years for nuclear-powered aircraft carriers, mandating that ships be designed to accommodate capability upgrades throughout their time in service. Emerging and constantly improving threats drive new requirements. For instance, to ensure success in the Maritime Domain, a capability for Ballistic Missile Defense and full spectrum Anti-Submarine Warfare needs to be incorporated in our new classes of ships.

The Navy's legacy ships, some procured at a rate of four to five ships of a single class per year in the 1980s, are projected to retire during the next 30 years. With the high cost of new construction ships, the Navy cannot recapitalize its legacy ships at the same rate at which they were originally procured and maintain an affordable, balanced procurement plan. This dynamic causes fluctuations in force structure.

Since the Navy's shipbuilding plan spans a long period, it is divided into two phases, *Near-* and *Far-Term*, each with a fundamentally different focus and unique assumptions. A description of each follows:

- **Near-Term:** This period includes the current budget year, Future Years Defense Plan (FYDP), and FY 2014-2020. This phase addresses the Navy's transformation to a 21st Century fighting force with the introduction of several new ship designs, with the objective of minimizing adjustments to the plan in order to balance the mix of ships, unit costs, budgeted resources, and industrial base concerns. The requirements underpinning this balance are based on Defense-wide planning scenarios that are informed by intelligence assessments of future threats and operating environments. Given known ship capability and quantity requirements, the cost estimates are judged reasonably accurate inside the FYDP. The accuracy of the cost estimates diminishes in the FY 2014-2020 timeframe.

- Prevent or contain local disruptions before they impact the global system

C. Force Structure

The 313-ship force structure shown in previous versions of this report was compliant with the *QDR 06* and *Strategic Planning Guidance*. In this President's Budget, the Navy has also considered the Maritime Strategy, and concluded that some adjustments should be made to this structure to accommodate essential changes in rotational, amphibious lift and intra-theater mobility requirements. No single mission area is disadvantaged in favor of any other to ensure that the Navy has the correct balance of carriers, submarines, cruisers, destroyers, amphibious and support ships to achieve the effects desired by the Combatant Commanders. However, the force structure depicted in this plan incurs risk in the following areas:

- Sourcing Carrier Strike Group (CSG) /Expeditionary Strike Group (ESG) demands for peacetime presence and warfighting response
- Ballistic Missile Defense
- Sea Shield (Theater Air and Missile Defense, Anti-Submarine Warfare) for CSG/ESG's
- Sourcing attack submarine (SSN) presence to approach Combatant Commanders' demand, and for Intelligence, Surveillance, and Reconnaissance (ISR).
- Meeting the stated Marine Corps Amphibious Lift Requirements
- Supporting the Long War/Global Maritime Security
- Providing a credible strategic deterrent force

Absent additional resources to procure, operate and maintain a larger fleet, the Navy will be compelled to accept the risk inherent in the current plan's minimum essential force structure. While in the main this plan achieves the necessary raw numbers of ships and sustains the shipbuilding industrial base, there are certain time periods where the ship mix, and therefore inherent capability of the force, varies from that required as a result of funding constraints and the timing of legacy fleet service life limits. The proposed force balances risk across mission areas with affordability, probability of need, and time required to recover should the future trend in an unexpected direction.

Table 1. Future Naval Force Structure (FY 2020)

Type/Class	313-Ship Force Structure
Aircraft Carriers	11
Surface Combatants	88
Littoral Combat Ships	55
Attack Submarines	48
Cruise Missile Submarines	4
Ballistic Missile Submarine	14
Amphibious Warfare Ships	31*
Combat Logistics Force Ships	30
Maritime Prepositioning Force (Future) Ships	12
Support Vessels	20

* Note: The DoN is reviewing options to increase assault echelon amphibious lift to 33 ships to meet USMC requirements.

V. Naval Vessel Construction Plan

Table 2 displays the Department of the Navy (DoN) new ship construction procurement and funding plans for FY 2009 and the Future Years Defense Plan (FYDP) as reflected in the FY 2009 President's Budget submission.

Table 2. FY 2009-2013 Shipbuilding Budget

											Total FY (09-13)	
Ship Type	FY09	Qty	FY10	Qty	FY11	Qty	FY12	Qty	FY13	Qty	$ M	Qty
CVN 21[1]	3,926		1,495		1,145		2,513	1	3,172		12,251	1
SSN 774[2]	3,424	1	3,952	1	5,294	2	4,753	2	4,957	2	22,380	8
DDG 1000	2,554	1	2,714	1	2,427	1	2,619	1	2,348	1	12,662	5
CG(X)					3,234	1			3,064	1	6,299	2
LPD 17[3]	103										103	
LCS[4]	920	2	1,380	3	1,380	3	1,840	4	2,760	6	8,280	18
T-AKE[5]	962	2									962	2
MPF(F)-LMSR[5]							1,149	1			1,149	1
MPF(F)- LHA(R)[5,6]	348		1,037	1	1,693				392		3,469	1
MPF(F)- MLP[5]			1,236	1			964	1	998	1	3,197	3
LCC-R[5]							1,924	1			1,924	1
JHSV[7]	175	1	174	1	182	1	188	1	195	1	914	5
Total New Construction	12,412	7	11,988	8	15,355	8	15,951	12	17,886	12	73,591	47

Notes:
1. In FY 2007 Congress provided Authorization to fund nuclear aircraft carrier procurement over a four-year period, which is reflected in the PB09 submission for CVN 78, lead ship of the CVN 21 class. This line item also funds advance procurement for CVN 79 and CVN 80.
2. Funding in FY 2009 - FY 2011 includes Economic Order Quantity funds for ships procured in FY 2010 - FY 2013. Funding in FY 2012 and FY 2013 includes advance procurement funds for submarines planned for procurement in FY 2014 and FY 2015.
3. Funding in FY 2009 represents program closeout costs.
4. Funding does not include LCS mission modules, which are funded in other Navy accounts.
5. Funded in National Defense Sealift Fund (NDSF).
6. Funding in FY2009 and FY2013 is advance procurement.
7. The JHSV Program is a joint Army and Navy program. Quantities reflect Navy procurement of 5 ships in FY 2009-2013.

VI. Long-Range Naval Vessel Construction Plan

The long-range naval vessel construction plan shown in Table 3 displays the projected procurement of 296 ships over the next 30 years, which is required to support the 313-ship minimum force structure outlined in Table 1. The following description of the plan is divided into near- and far-term phases to emphasize the fundamental differences in procurement during those periods.

Table 3. FY 2009-2038 Long-Range Naval Vessel Construction Plan

	Near Term												Far Term																
Fiscal Year	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Aircraft Carrier				1				1					1				1				1					1				1
Surface Combatant	1	1	2	1	2	1	2	2	2	2	2	2	2	2	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Littoral Combat Ships	2	3	3	4	6	6	6	6	6	6	4													1		2	5	5	5	5
Attack Submarines	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	2	1	2	1	2	1	2
Ballistic Missile Submarines											1			1		1	1	1	1	1	1	1	1	1					
Amphibious Warfare Ships								1	1	1		2		1	1	1		2		1	1	1		2		1	1	1		2
Combat Logistics Force	1									1		2	2	2	2	2	2	2			1		1	1	1					
Maritime Prepositioning Force (Future)	1	2		2	1	2	1								2	3	2	2												
Support Vessels	1	1	1	2	1	2	2		1	1	1	2		2	3	2	2				1	1	1	1	1	1	1			
Total New Construction Plan	7	8	8	12	12	13	13	12	12	13	10	10	7	10	9	10	11	10	6	7	8	8	7	11	7	10	11	9	9	13

A. Near-Term Naval Vessel Construction Plans

- The near-term plan focuses on transformation of the Navy Force structure to address the warfighting requirements of the 21st Century. These transformational ships include DDG 1000, CG(X), LCS, SSN 774, T-AKE, MPF(F) MLP, MPF(F) LMSR, and JHSV.
- The Navy continues to move toward establishing a sustaining production rate for its ship classes to reduce funding peaks in the future. Sustaining production rates will supply new ships at the same rate at which legacy ships reach the end of their planned service lives and have been planned for aircraft carriers, attack submarines, and amphibious ships. Transition to a sustaining rate for other ships where appropriate is addressed in the far-term.
- The Department appreciates Congress' support in the FY 2007 National Defense Authorization Act to fund aircraft carriers over four years. This split funding permits more efficient use of resources and facilitates stability in other shipbuilding programs and the Navy has adopted it in the President's FY2009 budget submission.
- Regarding surface combatants, the planned procurement of the DDG 1000 class will be completed by FY 2013 with a total of seven ships. The CG(X) program procures its first ship in FY 2011 with follow-on construction in FY 2013. The FY 2008 National Defense Authorization Act requires all major combatant vessels of the United States Navy strike forces to be constructed with an integrated nuclear power plant, unless the Secretary of Defense determines this not to be in the best interest of the United States. A nuclear propulsion plant will add to the cost per unit. This increased cost is not included in the current budget. The Navy acknowledges that this statute applies to CG(X). Resulting requirements definition and acquisition plans, including schedule options and associated risks, are being evaluated in preparation for CG(X) Milestone A.
- Table 3 shows the Navy has integrated the changes to the Littoral Combat Ship procurement plan previously reported to Congress.
- The Navy increased procurement to two VIRGINIA class attack submarines per year starting in FY 2011 in an effort to reduce a future inventory shortfall.
- The Navy has delayed MPF(F) procurement ($14 billion) in order to resolve the concept of operations.
- There are two support ship changes. Analysis indicates the T-ATF service life can be extended to 40 years. This permits the Navy to delay starting procurement of the T-ATF replacements until FY 2015. Additionally, beginning in FY 2009, the Navy plans to procure a total of seven Joint High Speed Vessels (JHSV) at a rate of one ship per year to meet Combatant Commanders' demands for intra-theater lift and Theater Security Cooperation support.

B. Far-Term Naval Vessel Construction Plans

- The far-term plan focuses on recapitalizing the Navy's legacy ship inventory. In the period from FY 2021 to 2038, 165 ships will reach the end of their expected service lives – twice the number planned for retirement during the near-term phase. The Navy must manage meticulously the service lives and modernization of legacy ships during this period to prevent block obsolescence from causing unacceptable gaps in capability and capacity. Starting procurement of the next generation ships earlier than might otherwise be needed is an imperative to level the replacement

profile. In the far-term phase, about thirty percent more ships must be procured than in the near-term phase. This procurement, combined with the required sustaining-rate replacement of aircraft carriers, attack submarines and amphibious assault ships, will provide a more stable demand on industry and prevent this cyclic problem from recurring again in the future

- The replacement program for the OHIO class Ballistic Missile submarines is a strategic issue that merits immediate attention. Absent additional resources to recapitalize this national strategic capability, the Navy will be unable to concurrently replace the existing OHIO class submarines and the balance of its force structure requirements in accordance with this shipbuilding plan. In the interim, the Navy will continue to work with US Strategic Command to complete the requirements analyses and systems studies necessary to define the replacement program.

- Plans for recapitalization of the OHIO class submarines that have been converted to SSGN have been deferred until their warfighting utility can be assessed. Should their replacement be required, it will be necessary to integrate their procurement with other ship and submarine recapitalization efforts planned for the post-FY 2020 period.

- Amphibious ship procurement will transition to a sustaining rate in FY 2016, ultimately encompassing a single ship type that will replace today's LSD 41 and LPD 17 classes.

VII. 30-Year Naval Force Size

The 30-year shipbuilding construction plan presented above results in the projected ship inventory shown in Table 4 below. The total inventory of battle force ships and numbers of each type of ship will vary from year to year as a result of the complex relationship between retirements, procurement, affordability, design and construction times, industrial base capacity, warfighting priorities and service life limits of the legacy fleet. The projected numbers of ships in active service shown below are counted as of the end of each fiscal year.

Table 4. FY 2009-2038 Naval Battle Force Inventory

	Near Term												Far Term																
Fiscal Year	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Aircraft Carrier	11	11	11	11	10	10	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Surface Combatant	109	111	113	110	107	99	94	92	92	93	93	94	95	94	94	94	93	91	91	89	91	94	96	99	101	100	98	95	94	94
Littoral Combat Ships	2	2	2	3	8	11	14	18	24	30	36	42	48	54	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Attack Submarines	53	52	52	53	54	51	51	49	50	49	50	48	48	47	47	46	45	44	43	41	41	42	44	45	47	49	50	52	53	53
Cruise Missile Submarines	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	1											
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	12	12	12	12	12	12	12	12	12
Amphibious Warfare Ships	31	32	34	34	33	33	33	33	33	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33	33	33	33	32
Combat Logistics Force	31	30	28	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Mine Warfare Ships	14	14	14	14	14	14	14	14	13	13	11	10	7	6	2	1														
Maritime Prepositioning Force (Future)					1	1	2	4	6	7	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Support Vessels	17	17	17	18	19	20	21	22	24	26	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Naval Force Inventory	286	287	290	290	291	287	288	293	301	309	314	316	321	327	327	328	329	329	329	328	330	332	335	339	341	343	343	343	343	342

The following sections describe the operational implications of ship inventories outlined in Near- and Far-Term phases over the 30-year span of this report.

A. Near-Term Naval Battle Force Inventory

- The minimum aircraft carrier force level requirement remains at 11 ships. However, the Navy is seeking a Congressional waiver to decrease the carrier force to 10 operational carriers between the

inactivation of USS ENTERPRISE (CVN 65) in November 2012 and the delivery of GERALD R FORD (CVN 78) in September 2015. During this 33-month period, Navy will mitigate the operational impact of the shortfall through selective rescheduling of carrier maintenance availabilities and by applying the inherent flexibility of the Fleet Response Plan. This risk mitigation strategy will support presence and surge requirements during this short time period, although it is not sustainable over a long period of time.

- The Littoral Combat Ship procurement profile was adjusted based on a program assessment following LCS-1 and LCS-2 cost increases. Although this assessment resulted in the removal of 13 ships from the FY 2008 President's Budget FYDP, the plan continues procurement to reach the objective of 55 ships by FY 2023.
- New T-AKE ships will replace the aging combat cargo and ammunition ships (T-AFS and T-AE) by FY 2012. This will complete the Navy's transition to a three ship-type combat logistics force, which will improve the overall effectiveness of operational fleet support. The Navy has committed to procure the minimum number of T-AKEs necessary to meet the Combat Logistic Force (CLF) requirement, currently assessed to be 12 T-AKEs. When MPF(F) T-AKE assets are considered in logistics planning for major combat operations, the CLF requirement drops to 11 T-AKEs, enabling the transfer of the 12th CLF T-AKE to the MPF(F).
- Ultimately, the 14-ship MPF(F) squadron will preposition the equipment and supplies of a planned FY 2015 Marine Expeditionary Brigade and will be capable of conducting at sea arrival and assembly operations to combat configure, employ, deliver and sustain Joint forces from over the horizon. MPF(F) ships will also meet Combatant Commander tasking for Theater Security Cooperation, disaster relief and other contingencies. The current budget does not include the 13th or 14th T-AKEs required to meet the MPF(F) structure described above, pending completion of an ongoing MPF(F) concept of operations study. It is expected that the assessment will show that the MPF(F) will need these two T-AKEs .
- JHSV class ships will provide support for intra-theater lift and Theater Security Cooperation at a relatively low cost. Additionally, the inventory of T-AGOS ships has been increased to account for lower operational availability than anticipated which has increased the rotational requirements for this class.

B. Far-Term Naval Battle Force Inventory

- The demand for Aegis ships is expected to increase because of their BMD capability. Achieving full service life from CG 47 class ships, and performing additional maintenance to extend the service life of DDG 51 class ships, is imperative to reduce the impact of rapid post-FY 2020 retirements pending entry of sufficient DDG(X) class ships into active service. A single mid-life modernization is no longer adequate for CG 47 and DDG 51 class ships due to the evolving threat environment, mandating periodic updates to keep them effective and to sustain engineering plant capacity. The current CG and DDG modernization efforts are the foundation for this effort and will serve as the baseline for subsequent upgrades throughout the remainder of their service lives. The impact of extending the service life of DDG 51 class ships five years is reflected in Table 4.
- The Navy faces a shortfall in its attack submarine inventory from FY 2022 through FY 2033. The inventory will reach a minimum of 41 ships in FY 2028-2029. The Navy has identified a strategy to mitigate the impact of this shortfall to include the following: (a) reducing build time of Virginia class attack submarines to 60 months; (b) extending the service life of selected attack submarines based on

technical feasibility and affordability; and (c) extending, as needed, the length of attack submarine deployments from 6 to 7 months to meet operational requirements.

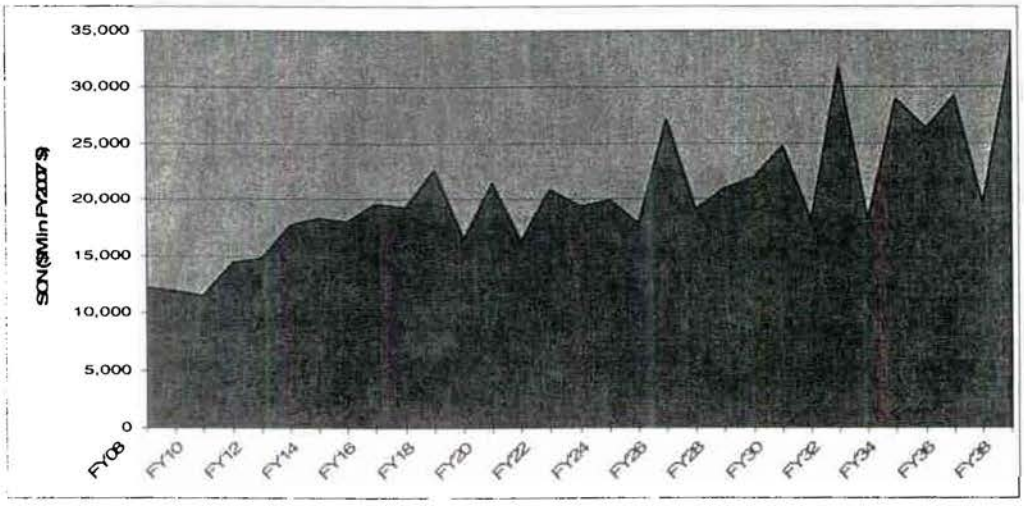
- OHIO class ballistic missile submarines start retiring in FY 2027, requiring construction of a replacement SSBN beginning in FY 2019. Any delay in construction will impact the Navy's ability to meet U.S. Strategic Command's (USSTRATCOM) Sea-Based Strategic Deterrent requirement.
- The Marine Corps requires sufficient Assault Echelon amphibious lift to support 2.0 Marine Expeditionary Brigades (MEB). MPF(F) will reinforce and support a 2.0 MEB Assault Echelon within a Marine Expeditionary Force-level operation by projecting a brigade and its associated support, and by providing the interface between operational and tactical logistics support from the Sea Base.
- Mine warfare ships will be replaced by Littoral Combat Ships configured with the mine warfare mission package. Legacy mine warfare ships will be phased out gradually by FY 2024.

VIII. Estimated Levels of Annual Funding Required for the Long-Range Shipbuilding Program

A. Overall

Figure 1 provides the estimated annual new construction funding requirements in FY 2007 dollars. The Navy recognizes that building the required force structure will largely depend on controlling shipbuilding costs (including combat systems) within an affordable range. This will require the combined efforts of the Navy, and the shipbuilding and combat systems industries. Working with Congress, the Navy is committed to procuring and sustaining the force structure necessary to deliver the effects expected of United States naval forces.

Figure 1. Annual Funding Required for Navy Long-Range Shipbuilding (FY 2009-2038)



Note:
This estimate shows funding required to support construction of the 313-ship minimum force structure over the period of the report. It does not include funding for SSBN recapitalization, CVN Refueling Complex Overhauls, SSBN/SSN Engineered Refueling Overhauls, other conversions, service life extension programs, small craft, or other costs associated with the Navy shipbuilding construction account. Per section VI.A., the estimate will be updated for FY 2010 based on CG(X) Milestone A decision, and in compliance with FY 2008 National Defense Authorization Act.

B. Near-Term Funding Requirements

The average steady-state annual shipbuilding funding required for achieving and sustaining the previous report's minimum 313-ship force structure was approximately $13.4 billion per year in FY 2005 dollars ($14.4 billion in FY 2007 dollars). The Navy's current cost estimate is affected in the near term by such factors as the FY 2006 Pension Protection Act, rising material costs, increasing labor rates, and the cost risk associated with developing and building new ship classes. Additionally, minimal first-tier shipbuilding capacity is devoted to commercial business, placing the overhead burden largely on Navy shipbuilding programs.

An additional complicating factor in ship procurement is the effect of the inflation rate experienced in the shipbuilding industrial sector compared to the Navy's budget. The shipbuilding industry's historical cost inflation rate is approximately 1.5 percent higher than the rate used by the Department of Defense to adjust the budget for year-to-year inflation. Consequently, the Navy's total obligation authority (TOA) has not paced the shipbuilding cost inflation rate. The net result of this mismatch is that resources available to support shipbuilding are eroding.

Accordingly, the Navy has revised the average steady-state annual shipbuilding funding requirement to $15.8 billion per year in FY 2007 dollars through the near-term period (through FY 2020). The $15.8 billion per year investment includes National Defense Sealift Funds (NDSF) and applies only to new construction battle force ships. It does not include funding for SSBN recapitalization, CVN Refueling Complex Overhauls, SSBN/SSN Engineered Refueling Overhauls, other conversions, service life extension programs, small craft, or other costs associated with the Navy shipbuilding construction account.

The Navy is experiencing some success in controlling and reducing shipbuilding costs. The VIRGINIA class SSN program is on track to reduce procurement cost by $400 million per ship (FY 2005 dollars) by FY 2012 through an aggressive cost reduction program. Program elements facilitating this success include increasing production to two submarines per year under multi-year procurement authority, improving construction performance, investing in capital improvements, and implementing design changes to reduce construction costs.

To better control requirements, the Navy's Requirements and Resources Review Board (R3B) and newly instituted acquisition governance process changes are effectively managing adjustments to top-line requirements after programs have been initiated. Future process improvements will exert executive level control over shipbuilding and combat systems technical authority actions which have a large impact on program cost.

C. Far-Term Funding Requirements

The majority of procurement planned beyond FY 2020 is focused on recapitalizing retiring ship classes. Dramatically increased funding is required just to maintain Navy force levels during the post-FY 2020 period, without including funding that may be required to replace retiring non-battle force Strategic Sealift ships. Many of the new replacement ships identified as part of the Navy's 30-year shipbuilding program have not been designed. Cost estimates for these ships will remain a rough order of magnitude until conceptual designs are completed and more accurate cost estimating methods can be applied.

The Navy is emphasizing repeat builds of ships within the same class to reduce new construction costs, provided required warfighting capabilities can be fielded using this approach. This permits longer production runs and resultant cost reductions associated with production improvements and economies of scale. The Navy's shipbuilding plans include incorporation of open architecture for hardware and software systems and increased use of systems modularity. In addition, the Navy is aggressively pursuing opportunities to incorporate standardized components to reduce logistics support costs. These

initiatives will reduce the cost of maintenance and system upgrades, and will facilitate keeping Navy ships in service longer.

The Navy will consider several industrial factors as it pursues operational capability at reduced cost. First, level loading of ship procurements to help sustain minimum employment levels and skill retention will promote a healthy U.S. shipbuilding industrial base. Further, to achieve affordability goals, Navy program managers will make greater use of contract incentives, such as steep share lines combined with performance incentives, multi-year procurement, fixed price contracts (when and where appropriate), and increased use of competition to contribute to real shipbuilding cost containment.

IX. Naval Vessel Construction Risk

Funding for the Navy's shipbuilding requirements meets the needs of the Department and fully funds those ships included in the FY 2009 President's Budget and the Future Years Defense Plan through FY 2013.

X. Summary

Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools, and industrial base capacity to further improve its shipbuilding plans, but the near-term shipbuilding plans have remained relatively stable. Although a larger force may reduce the significant major combat operations and Long War risks inherent in the 313-ship minimum force structure depicted, this plan represents an acceptable balance between capability, affordability, and the need to sustain the industrial base.

Full funding and support of this plan is crucial if the Navy is to maintain the minimum essential battleforce necessary to meet the maritime needs of the nation.

Addendum Report
Navy Plans for Decommissioning Ships during Future-Years Defense Plan (FYDP)

I. Introduction

This addendum report is in compliance with the Senate Armed Services Committee request for additional information regarding decommissioning and disposal of Naval vessels:

> *The Committee directs the Secretary of Defense to include, as an addendum to the annual report on the construction of naval vessels, commencing with submission of the report for fiscal year 2009, the future-years defense plan for the Navy's inactive ships. The addendum shall address: (i) hull numbers of ships that are to be disposed by dismantling or sinking within the future-years defense plan; (ii) hull numbers of ships that are to be decommissioned within the future-years defense plan; (iii) gaps in capability that will occur upon the decommissioning of each ship, including duration of that capability gap; and (iv) disposition proposed for each ship upon decommissioning.*

The Secretary of the Navy approves the change in status of all ships, active or inactive, of the United States Navy (including Military Sealift Command) upon recommendations made by the Chief of Naval Operations (CNO). Annually, the CNO reviews the proposed ship decommissioning and deactivation plans, and the composition of the inactive fleet and its material condition, to reassess the number of ships to be held in the various categories of readiness and their disposition if not required for retention.

When determining which ships will be decommissioned or deactivated, several factors are taken into consideration. Maintaining a ship in inventory involves operational cost, manning requirements, maintenance, and system upgrades to ensure the continued interoperability and operational effectiveness. The ship's operational history, including particularly demanding operations in harsh environmental conditions, often impacts its viable service life. Other factors, such as design changes or modifications made to the ship, or a design that is not amenable to a subsequent operational system upgrade, may make it infeasible to continue its service. Since ships operate over periods of decades, sometimes the operational mission of the ship becomes obsolete and there is no continued operational purpose for the ship. Under these conditions, it may sometimes be advantageous to retire a ship despite the Navy's desire to maintain its numbers and avoid recapitalization costs.

The Navy's methods to reduce the inventory of deactivated or decommissioned ships, in priority order, include interagency transfers to the Maritime Administration, United States Coast Guard (USCG) or other government agencies; donations for memorial/museum use by the public; foreign military sales (FMS) transfers; dismantling or scrapping; experimental use; or by sinking in conjunction with critical fleet training exercises, weapons effectiveness testing, or forming artificial reefs. Nuclear-powered ships are dismantled by a special recycling process. Select ships that have completed their useful service lives may be retained in the inactive fleet for a period of time to be available for future mobilization or while awaiting disposal. The longer a ship remains in the inactive fleet, the less likely it will be operationally useful in the future and the more costly its reactivation or disposal becomes.

Two decisions are associated with the disposal of Navy ships. First is the decision to decommission or deactivate the ship from active service, including striking it from the Naval Register. The second is to determine its disposition following its retirement. This report outlines the Navy's plans for ship decommissioning and deactivation within the Future Years Defense Plan (FYDP), and further identifies those ships that will be either sunk or dismantled/disposed of in the same period.

II. Ships planned for decommissioning or deactivation during the Future Years Defense Plan

Table 1 lists, by year, the Navy ships that are to be decommissioned or deactivated within the FYDP. The table identifies the planned disposition for each ship. The description of any potential gap in warfighting capability that might occur when the ship is removed from service is included in the discussion below the table.

Table 1. Ships Planned for Decommissioning or Deactivation[1] during the FYDP

FY	SHIP NAME	HULL NO.	PLANNED DISPOSITION
2009	USNS SATURN	T-AFS 10	SINKEX
	USNS CONCORD	T-AFS 5	SINKEX
	USNS SAN JOSE	T-AFS 7	SINKEX
	USNS HAYES	TAG 195	SINKEX
	USS JUNEAU	LPD 10	Inactive Fleet
	USS NASHVILLE	LPD 13	Inactive Fleet
	USS TARAWA	LHA 1	Inactive Fleet
	USS KITTY HAWK	CV 63	Inactive Fleet
2010	USNS KILAUEA	T-AE 26	SINKEX
	USNS MOUNT BAKER	T-AE 34	SINKEX
	USS MCINERNEY	FFG 8	Foreign Military Sales
	USS LOS ANGELES	SSN 688	Dismantle
	USS PHILADELPHIA	SSN 690	Dismantle
2011	USNS FLINT	T-AE 32	SINKEX
	USNS KISKA	T-AE 35	SINKEX
	USNS SHASTA	T-AE 33	SINKEX
	USS MEMPHIS	SSN 691	Dismantle
2012	USS BOONE	FFG 28	Foreign Military Sales
	USS STEPHEN W GROVES	FFG 29	Foreign Military Sales
	USS JOHN L HALL	FFG 32	Foreign Military Sales
	USS DUBUQUE	LPD 8	Inactive Fleet
	USS CLEVELAND	LPD 7	Inactive Fleet
2013	USS JARRETT	FFG 33	Foreign Military Sales
	USS UNDERWOOD	FFG 36	Foreign Military Sales
	USS CROMMELIN	FFG 37	Foreign Military Sales
	USS DOYLE	FFG 39	Foreign Military Sales
	USS KLAKRING	FFG 42	Foreign Military Sales
	USS DENVER	LPD 9	Inactive Fleet
	USS ENTERPRISE	CVN 65	Dismantle

Note:
1. Military Sealift Command ships are not commissioned ships. They are deactivated when removed from active service.

A. Aircraft Carriers (CV/CVN)

To maintain as constant a force structure as possible, the delivery of new aircraft carriers is planned to coincide with the scheduled decommissioning of carriers reaching the end of their expected service lives. USS KITTY HAWK (CV 63) will be decommissioned in the Spring of 2009, after nearly 48 years of service, at roughly the same time the Navy expects to take delivery of the last NIMITZ-class carrier, GEORGE H W BUSH (CVN 77). This schedule maintains the carrier fleet at 11 operational ships through early FY 2013. However, the delivery of GERALD R FORD (CVN 78) in September 2015 does not align with the inactivation of USS ENTERPRISE (CVN 65) after 51 years of service in November 2012. The Navy is requesting a waiver from Congress to allow the carrier force structure to decline to 10 ships during this 33-month period. Recognizing that this short-term carrier gap will result in increased stress on the remaining carrier force, the Navy has developed a workable strategy; using

deployment cycle lengths, Fleet Response Plan variations, and rescheduled ship maintenance availabilities; to mitigate the operational impacts of a 10-carrier force. The Navy remains committed to an 11 carrier force.

B. Surface Combatants

The FFG 7 class reaches the end of its service life prior to FY 2020. During the period of this report, nine guided missile frigates of the FFG 7 class will be retired at the end of their useful service lives and, provided the Littoral Combat Ships join the fleet as planned, there will be no capability gap.

C. Submarines

With the planned inactivation of USS LOS ANGELES (SSN 688), USS PHILADELPHIA (SSN 690), and USS MEMPHIS (SSN 691) at the end of their planned 33-year service lives, the Navy will have the required numbers of nuclear attack submarines until FY 2022. These SSN 688 class submarines are being replaced by the construction of VIRGINIA class attack submarines. The retirement of these ships will not exacerbate the long-term shortfall in submarine strength since their service lives do not permit their extension beyond FY 2022.

D. Amphibious Ships

The Commandant of the Marine Corps has determined that a minimum of 33 amphibious ships is necessary to support their assault echelon lift requirements; specifically, he has requested a force of 11 aviation capable amphibious ships, 11 LPDs and 11 LSDs. The Chief of Naval Operations supports the Commandant's determination. All of the ships in these classes will retire after 41-45 years of service. This addendum report reflects the service life extension of 2 AUSTIN class LPDs to 45 years and 47 years respectively, and 2 TARAWA class LHAs to 43 years. While the mix of the 33 ships reflected in this plan differs slightly from the USMC requirement, it represents acceptable risk considering the amphibious ships planned for decommissioning are not scheduled for dismantling or sinking to permit mobilization at a later date if required. The decommissioning ships are being replaced with newer more capable LPD 17 and LHA 6 class ships. The Navy will maintain the 33-ship requirement for amphibious shipping through the FYDP while these new ships are integrated into the battleforce. Consequently, there will be no amphibious ship capability gaps through at least FY 2019.

E. Combat Logistics Force (CLF) Ships (T-AFS and T-AE)

Navy has evolved its combat logistics support operational concept to reduce CLF ship requirements to three types, including the Fast Combat Support Ship (T-AOE), Fleet Oiler (T-AO), and Dry Cargo/Ammunition Ship (T-AKE). The Navy plans to retire aging combat cargo and ammunition ships (T-AFS and T-AE) as the new construction T-AKE class ships join active service, thereby maintaining CLF force levels. T-AKE will continue to replace the aging legacy CLF ships through FY 2011. No capability gap will exist within the Combat Logistics Force.

F. Support Ships.

Only one support ship, USNS HAYES T-AG 195, is planned for retirement during this FYDP. This ship is not required to support the Navy's 313-ship minimum force structure requirement.

III. Ships planned for disposal during the Future Years Defense Plan

The Navy recognizes that environmental and safety risks increase as inactive ships deteriorate and their disposal is delayed. The longer retired ships sit in the inactive fleet, the higher the environmental risks

and disposal costs. The Navy's inventory of inactive ships has been reduced from a high of 195 ships in 1997 to 62 ships today.

As indicated earlier, ships not identified for disposal are retained for possible future mobilization, transfer to other government organizations, foreign military sales, logistics support, or donation for use as museums or for public display. When these options are not appropriate, the two primary means of disposal of inactive ships are either by dismantling or sinking. Dismantling is one of the more costly options involving a commercial ship dismantling yard. The process for dismantling nuclear-powered ships is considerably more complex than conventionally-powered ships and requires special disposal of the propulsion plant components. For nuclear ships, dismantling through a special recycling process is the only viable option. Disposal of conventionally-powered ships by sinking will usually be conducted as part of an approved training exercise or to support weapons testing requirements. Inactive ships contribute significantly to the Navy in this role, as these exercises often result in cost savings for developmental programs requiring live-fire testing, provide key learning necessary to improve fleet tactics and weapons design, and provide on-going statistical data to assess weapons performance. Another option for sinking may be to provide an ocean bottom artifact to support fish and marine growth as an artificial reef. In both cases the Navy complies strictly with the Environmental Protection Agency directives of 1996 and 1999.

Specific ship disposition plans are made at the annual Ship Disposition Review Conference. The Ship Disposition Review Conference provides a forum for evaluating operational risk, inventory requirements and other issues to ensure the best possible recommendations for ship disposition are provided to Navy leadership. The Navy establishes its ship disposition plans based on the methods available that are most advantageous to the government.

Table 2. Ships Planned for Disposal by Dismantling

SHIP NAME	HULL NO.	SHIP NAME	HULL NO.
Ex-PUGET SOUND	AD 38	Ex-ANCHORAGE	LSD 36
Ex-CORONADO	AGF 11	Ex-FORT FISHER	LSD 40
Ex-SIMON LAKE	AS 33	Ex-TROUT	SS 566
Ex-L Y SPEAR	AS 36	USS LOS ANGELES	SSN 688
Ex-MCKEE	AS 41	Ex-DRUM	SSN 677
Ex-YORKTOWN	CG 48	Ex-OMAHA	SSN 692
Ex-VINCENNES	CG 49	Ex-CINCINNATI	SSN 693
Ex-THOMAS S GATES	CG 51	Ex-NEW YORK CITY	SSN 696
Ex-INDEPENDENCE	CV 62	Ex-GROTON	SSN 694
Ex-CONSTELLATION	CV 64	Ex-BIRMINGHAM	SSN 695
Ex-AUSTIN	LPD 4	Ex-PHOENIX	SSN 702
Ex-NEW ORLEANS	LPH 11	Ex-BALTIMORE	SSN 704

The Navy will dismantle the ships listed in Table 2 within the FYDP. Specific dates have not been determined as several factors dictate when the ships will be put under contract for their scrapping or recycling in the case of nuclear-powered ships. With the exception of nuclear-powered ships, dismantling is the lowest priority for disposal of ships and is used when other options are not feasible. For nuclear ships the dismantling through a special recycling process is the only viable option. The actual date of dismantlement depends on such factors as the timing of decommissioning or deactivation, the location of the ship and attendant requirements for hull cleaning and transfer to the dismantlement

facility, time available to strip the ship of any salvageable Navy components, any special holds placed on ships while reconsidering dismantlement, and availability of disposal funds.

Table 3. Ships Planned for Disposal by Sinking

FY	SHIP NAME	HULL NO.
2009	Ex-ACADIA	AD 42
	Ex-CONOLLY	DD 979
	USNS HAYES	TAG 195
2010	USNS CONCORD	T-AFS 5
	USNS SAN JOSE	T-AFS 7
	USNS SPICA	T-AFS 9
	USNS NIAGARA FALLS	T-AFS 3
2011	USNS KILAUEA	T-AE 26
	USNS SATURN	T-AFS 10
2012	USNS FLINT	T-AE 32
	USNS SHASTA	T-AE 33
	USNS MOUNT BAKER	T-AE 34
	USNS KISKA	T-AE 35
TBD	Ex-FORRESTAL	AVT 59
TBD	Ex-ARTHUR W RADFORD	DD 968

Table 3 lists the ships that the Navy plans for disposal by sinking as part of fleet training exercises during FY 2009 – 2012. All of these ships will be at or beyond their expected service lives when disposal is completed. Ex-FORRESTAL and Ex-ARTHUR W RADFORD are candidates for sinking to become artificial reefs. Specific dates for these two will not be set until all the prerequisite requirements and authorizations are obtained, and plans are appropriately coordinated with other agencies and Congress.

IV. Summary

This addendum outlines the Navy's plans for retired or retiring ships developed as a result of an annual Ship Disposition Review conducted in December 2007. In developing this plan, the Navy's focus has been on maintaining its 313-ship minimum force structure, cost avoidance by ensuring each ship operates for its full service life, and ensuring ships that might be required for future mobilizations remain in reserve. During the FYDP, the Navy will retire 29 ships with various dispositions including retention, logistics support assets, foreign military sales, donations for public displays, dismantling, and sinking. The Navy plans to dismantle 24 ships and sink 15 ships that have no further use for the Navy.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 361 of the John Warner Fiscal Year (FY) 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2009 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

The Department of the Navy has budgeted and programmed sufficient funding in FY 2009 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs submission to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The enclosed FY 2009 report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification.

A similar letter has been sent to Chairmen Skelton, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 361 of the John Warner Fiscal Year (FY) 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2009 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

The Department of the Navy has budgeted and programmed sufficient funding in FY 2009 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs submission to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The enclosed FY 2009 report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification.

A similar letter has been sent to Chairmen Levin, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 361 of the John Warner Fiscal Year (FY) 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2009 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

The Department of the Navy has budgeted and programmed sufficient funding in FY 2009 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs submission to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The enclosed FY 2009 report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification.

A similar letter has been sent to Chairmen Levin, Skelton and Inouye. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 361 of the John Warner Fiscal Year (FY) 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2009 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

The Department of the Navy has budgeted and programmed sufficient funding in FY 2009 to meet baseline mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs submission to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The enclosed FY 2009 report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification.

A similar letter has been sent to Chairmen Levin, Skelton and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

REPORT TO CONGRESS

FY 2009 DEPARTMENT OF THE NAVY ASSESSMENT OF SHIP STEAMING DAYS, SHIP DEPOT MAINTENANCE, AND AIR DEPOT MAINTENANCE WORKLOAD

OFFICE OF THE ASSISTANT SECRETARY OF THE NAVY
(FINANCIAL MANANGEMENT AND COMPTROLLER)

1000 NAVY PENTAGON

WASHINGTON, DC 20350

JANUARY 2008

TABLE OF CONTENTS

1. ASSESSMENT 3

A. Assessment of deployed and non-deployed ship steaming days per quarter, itemized by active-duty component and reserve component, and the associated budget request 3

B. Assessment of the CNO ship depot maintenance availabilities 4

B1. Table showing ship depot maintenance availabilities by type and location 4

C. Assessment of air depot maintenance workload 5

C1. Table summary of air depot maintenance by engine units and location 5

C2. Table summary of air depot maintenance by airframe units And location 6

REPORTING REQUIREMENT

Section 361 of the John Warner National Defense Authorization Act for Fiscal Year (FY) 2007 directed the Secretary of the Navy to submit an annual report setting forth the progress toward funding the requirements for the number of ship steaming days per quarter for Navy ship operations as well as projected depot maintenance for Navy ships and aircraft. The required report shows that the Navy has budgeted and programmed funding to fully meet the requirements for that fiscal year for each of the following:

(a) The deployed and non-deployed quarterly ship steaming day requirements, itemized by active-duty component and reserve component.

(b) The associated budget request for each of the following:

(1) Deployed and non-deployed ship steaming days per quarter.

(2) Chief of Naval Operations ship depot maintenance availabilities, shown by type of maintenance availability and by location.

(3) Air depot maintenance workload, shown by type of airframe and by location.

1. Steaming Day Requirement

A. Deployed and Non-deployed ship steaming days per quarter.

Active Component

The FY 2009 ship steaming day baseline requirement for the active duty component is 45 days per quarter deployed and 22 days per quarter non-deployed to meet mission requirements for presence and theatre security cooperation. The steaming day requirement incorporates the impact of higher demand on forces, due to the Global War on Terrorism (GWOT), on peacetime operational tempo. Funding in FY 2009 meets this requirement.

Reserve Component

The FY 2009 ship steaming day requirement for the reserve component is 35 days per quarter deployed and 18 days per quarter non-deployed. The identification of the 35 day per quarter requirement for the reserve component reflects the programming of 22 deployed operating months for the reserves in FY 2009. Funding in FY 2009 meets this requirement.

B. CNO Ship depot maintenance requirements.

The types of ship depot maintenance availabilities that will be conducted in FY 2009 are:

Selected Restricted Availability (SRA)
Planned Maintenance Availability (PMA)
Planned Incremental Availability (PIA)
Overhaul (OH)
Service Craft Overhaul (SCO)

The number, type and location of the availabilities programmed during FY 2009 are delineated in the following table:

Planned Ship Availabilities

Location	FY 2009 Availability Count				
	SRA	PMA	PIA	OH	SCO
Jacksonville, FL	11	0	0	0	0
Newport News, VA	1	0	0	0	0
Norfolk, VA	18	8	0	1	0
Portsmouth, NH	1	0	0	1	0
Pearl Harbor, HI	6	1	0	1	0
Puget Sound, WA	4	0	1	0	0
San Diego, CA	3	4	0	0	0
FDNF	12	1	0	0	0
TBD	1	1	0	0	0
Total Availabilities	57	15	1	3	0

Typically, the Navy's budget for Ship Maintenance will reflect a small percentage for deferred maintenance. The amount programmed and budgeted in FY 2009 for Ship Maintenance is 97% of requirement and assumes an acceptable level of risk. This level of resources does not include the likely impact of the continuation of the GWOT. For example, in FY 2007, GWOT operations required an additional $474M for ship maintenance above the baseline budgeted amount.

C. **Air depot maintenance requirements.**

The Air Depot Maintenance FY 2009 workload, shown by type of airframe / engine and location, is displayed below. The amount programmed and budgeted provides 100% of Primary Authorized Aircraft (PAA) for deployed squadrons, and 88% for non-deployed squadrons against a goal of 90% PAA. Engine Maintenance is funded to ensure that 100% of PAA and Basic Authorized Aircraft will have zero bare firewalls, and that ready-for-issue spares are at 90%. In FY 2009, 88% of engine Type/Model/Series meet the 90% spares goal. The variance to the goal is result of capacity constraints of the repair facilities, and not the result of the amount budgeted. However, these levels still fully support the Department's Fleet Response Plan requirements for FY 2009.

The following tables summarize air depot maintenance workload by airframe, engine units and by location.

FY 2009 Air Depot Maintenance Summary of Engine Units by Repair Location/Method

		Organic			
Engine	Aircraft	Cherry Point	Jacksonville	Commercial	Inter-Service
250-C20	TH-57			16	
CFM562A2	E-6B				6
F402RR408B	AV-8B	22			
F414GE400	F/A-18E-F/EA-18G		12		
F414GE400A	F/A-18E-F/EA-18G		5		
F414GE400C	F/A-18E-F/EA-18G		273		
F414GE400F	F/A-18E-F/EA-18G		206		
F414GE400H	F/A-18E-F/EA-18G		231		
F414GE400L	F/A-18E-F/EA-18G		159		
F414GE400S	F/A-18E-F/EA-18G		190		
J52P408A	EA-6B		1		
J52P408B	EA-6B		24		
JT12A8	T-39			24	
JT8D9	C-9			2	
MK611-8	C-20D/G			2	
PT6A25	T-34			35	
PT6A34B	T-44			20	
PT6A41	UC-12B			29	
PT6A42	UC-12F/M			12	
PT6A68	T-6			10	
PWC535A	UC-35D			6	
T400CP400G	HH-1N/UH-1N	8			
T400CP400P	HH-1N/UH-1N	16			
T56A14G	P-3			47	
T56A14P	P-3			30	
T56A14T	P-3			41	

T56A425G	C-2A			14	
T56A425P	C-2A			17	
T56A425T	C-2A			10	
T56A427G	E-2C			17	
T56A427P	E-2C			33	
T56A427T	E-2C			11	
T58GE16	H-46E			0	
T58GE16A	H-46E	28			
T58GE400B	VH-3D	9			
T64GE413	CH-53D	5			
T64GE416	CH-53E	30			
T64GE416A	CH-53E	28			
T64GE419	MH-53E	11			
T700GE401	AH-1W/Z			2	1
T700GE401CL	H60/UH1Y			17	4
T700GE401CX	H60/UH1Y			48	20
T700GE401L	AH-1W/Z			9	6
T700GE401V	VH-60N				6
T700GE401X	AH-1W/Z			8	6
TPE331-12	C-26D			5	
TOTAL		157	1101	465	49

FY 2009 Air Depot Maintenance Summary of Airframe Units by Repair Location/Method

	Organic				
Aircraft	Cherry Point	Jacksonville	North Island	Commercial	Inter-Service
AH-1W	23		25	5	
AV-8B	14		10		
C-20A					
C-20G				1	
C-2A		8	9		
C-26D				3	
C-9B				2	
CH-46E	21			5	
CH-53D				4	
CH-53E	13		9	4	
E-2C		8	7	2	
E-6B					18
EA-6B	5	7	28		
EP-3E				3	
F/A-18A		4	11		
F/A-18B		1	6		
F/A-18C		29	48	5	
F/A-18D		5	9		
F/A-18E			15	2	
F/A-18F		4	19	2	

HH-1N			3		
HH-60H		3	4		
KC-130J					2
MH-53E	3				
MH-60R			5		
MH-60S		13	10	5	
MV-22B	2				
P-3C		11		17	
SH-60B		19	14	5	
SH-60F		7	5	3	
T-34C				76	
T-39G				1	
T-39N				3	
T-44A				13	
T-45A				26	
T-45C				36	
T-6A				2	
TAV-8B	3				
TC-12B				4	
TH-57B				7	
TH-57C				12	
UC-12B				1	
UC-12M				6	
UC-35D				1	
UH-1N	15		9	3	
VH-3D				3	
VH-60N				2	
TOTAL	99	119	246	264	20

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 22 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The conference agreement for appropriations for fiscal year 2008 appropriates $295,689,000 for the Department of Defense Base Closure Account 1990, which includes an increase of $50,000,000 above the budget requested by the Navy.

The enclosed report, required by the 110th Congress House of Representatives Conference Report 110-424, details the planned expenditure of the additional funds.

Sincerely,

Wayne Arny
Deputy Assistant Secretary of the Navy
(Installations and Facilities)

Enclosure:
As stated

Copy to:
The Ranking Member

Fiscal Year 2008 Appropriation
Base Realignment and Closure Account – BRAC Rounds I-IV
Department of the Navy
Environmental Restoration Projects
(Dollars in Thousands)

Installation/Location	State	Project Title	Amount
Naval Air Station Alameda	CA	Environmental Restoration	300
Naval Air Facility Adak	AK	Environmental Restoration	15,700
Naval Station Treasure Island Hunters Point Annex	CA	Environmental Restoration	28,000
Naval Station Treasure Island	CA	Environmental Restoration	6,000
		TOTAL:	50,000

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 22 2008

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The conference agreement for appropriations for fiscal year 2008 appropriates $295,689,000 for the Department of Defense Base Closure Account 1990, which includes an increase of $50,000,000 above the budget requested by the Navy.

The enclosed report, required by the 110th Congress House of Representatives Conference Report 110-424, details the planned expenditure of the additional funds.

Sincerely,

Wayne Arny
Deputy Assistant Secretary of the Navy
(Installations and Facilities)

Enclosure:
As stated

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Member

Fiscal Year 2008 Appropriation
Base Realignment and Closure Account – BRAC Rounds I-IV
Department of the Navy
Environmental Restoration Projects
(Dollars in Thousands)

Installation/Location	**State**	**Project Title**	**Amount**
Naval Air Station Alameda	CA	Environmental Restoration	300
Naval Air Facility Adak	AK	Environmental Restoration	15,700
Naval Station Treasure Island Hunters Point Annex	CA	Environmental Restoration	28,000
Naval Station Treasure Island	CA	Environmental Restoration	6,000
		TOTAL:	50,000

REPORT TO CONGRESS

ON

CHARTERING OF FOREIGN-BUILT SHIPS

Prepared by:

Military Sealift Command
914 Charles Morris Court, SE
Washington Navy Yard, DC 20398-5540

March 2008

Report to Congress
On Chartering of Foreign-Built Ships

I. Report Requirements

The Fiscal Year 2008 House Appropriations Committee Report 110-279 directs the Secretary of the Navy to submit a report not later than March 31, 2008 that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

II. Background

The Navy's Military Sealift Command (MSC) charters vessels from the commercial market to meet the unique military requirements of Department of Defense (DoD) components, including the afloat prepositioning and ocean transportation of military cargo. Chartering allows DoD to respond efficiently in cases where the military requirement is immediate, subject to change, or of uncertain duration.

MSC is prohibited from chartering a vessel for a period of greater than five years, including option years, unless specifically authorized by law (10 USC §2401).[1] Ships that are time chartered for more than six months to meet military missions are U.S.-flagged and crewed by U.S. merchant mariners. MSC currently enters into contracts for firm periods of up to one year with four one-year options when it time charters such vessels.

When a foreign-built ship is used for these charters, the ship is required to be converted to U.S.-flag, and crewed by U.S. citizen mariners prior to the beginning of the charter. Any conversion work needed to bring the foreign-built ship up to U.S. flag standards and any modifications needed to meet contract requirements, by law, must be accomplished in U.S. shipyards (10 USC §2631(b)).

Few commercial ships with high military utility have been constructed in U.S. shipyards in the past 20 years. Consequently, when MSC has a requirement to charter a vessel, nearly all of the offers are for foreign-built ships.

Currently there are 32 vessels under time-charter for periods exceeding six months; seventeen of which are U.S.-flagged foreign-built ships.

[1] Congress recently imposed additional leasing restrictions by amending 10 U.S.C. §2401 to limit a Military Department's authority to enter into a contract for the lease a vessel, or the provision of a vessel through a charter or service contract, for a period greater than two years but less than five years. A Military Department may enter into such a contract only after providing notice of the proposed contract to the congressional defense committees and waiting for 30 days of continuous session of Congress to pass. *See* National Defense Authorization Act for Fiscal Year 2008 § 1011, Pub. L. No. 110-181, 122 Stat. 3 (2008).

III. Current Foreign-Built Ships Under Charter

Since 2002 the number of foreign-built ships under charter to MSC has declined from 22 to 17. The 17 foreign-built chartered ships include two special mission ships, 11 prepositioned ships, and four sealift ships.

The following table provides information on each of the 17 ships (see Enclosure 1 for additional information including detailed plans to meet future requirements):

Foreign-Built Ships Under Charter (Six Months or Greater) To Military Sealift Command

Vessel Name	Vessel Type	Country of Origin^	DOD CUSTOMER / Mission	End Date
SPECIAL MISSION SHIPS				
CORY CHOUEST*	Offshore Supply Vessel	Norway	USN/ Undersea Surveillance	31-Aug-08
HSV 2 SWIFT**	HSV	Australia	USN/ High Speed Vessel	14-Jul-08
PREPOSITIONING SHIPS				
WESTPAC EXPRESS**	HSV	Australia	USMC/ Dry Cargo and PAC Japan and S. Korea	30-Sep-11
CPL LOUIS J. HAUGE JR*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Guam and Saipan	6-Sep-09
PFC WILLIAM B. BAUGH*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Diego Garcia	27-Oct-09
PFC JAMES ANDERSON JR*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Guam and Saipan	25-Mar-10
1ST LT. ALEX BONNYMAN*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Guam and Saipan	25-Sep-10
PVT FRANKLIN J. PHILLIPS*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Diego Garcia	11-Sep-10
LTC JOHN U.D. PAGE	Container	S. Korea	USA/ Prepo Cargo Diego Garcia	31-Dec-10
SSG EDWARD A. CARTER JR.	Container	S. Korea	USA/ Prepo Cargo Diego Garcia	30-Jun-11
CAPTAIN S.L. BENNETT	Container	S. Korea	USAF/ Prepo Cargo Diego Garcia	20-Nov-12
A1C WM H. PITSENBARGER	Container	France	USAF/ Prepo Cargo Diego Garcia	10-Mar-12
MAJ BERNARD F FISHER	Container	Denmark	USAF/ Prepo Cargo Saipan	15-Sep-09
SEALIFT SHIPS				
BAFFIN STRAIT	Multi-Purpose Container	China	USN/ Diego Garcia Dry Cargo Shuttle	30-Sep-09
AMERICAN TERN	Multi-Purpose Container	Germany	NSF & USAF / Dry Cargo for Antarctica and Greenland	30-Sep-10
VIRGINIAN	Heavy Lift Container	Germany	JOINT MUNITIONS CMD/ Dry Cargo Operations	15-Oct-11
TRANSPACIFIC	Tanker	Turkey	DESC/ Far East Petroleum Shuttle	22-Oct-11

No Continued Chartering Requirement Continued Chartering Requirement TBD

* Charter specifically authorized by Congress
** Bridge charters planned to provide interim capability until a Navy-funded U.S.-built JHSV is delivered (First delivery planned for mid-FY12)
^ All ships are U.S.-flagged. Work necessary to meet U.S.-Flag standards was performed in U.S. shipyards

IV. Future Requirements

Special Mission Ships:

In Fiscal Year 2008, the CORY CHOUEST, an ocean surveillance vessel chartered as a Surveillance Towed Array Sensor System (SURTASS) and Low Frequency Array (LFA) platform, will be redelivered to her owner. Navy will retain the surveillance capability through use of a modified government-owned USNS vessel.

Prepositioning Ships:

Upon expiration of its contract in Fiscal Year 2008, the requirement for a High Speed Vessel (HSV) currently being met by HSV 2 SWIFT will transfer from the Special Mission Ship Program to the Prepositioning Program. MSC has issued a Request for Proposals (RFP) for a follow-on contract that will provide an interim capability until new U.S.-built Joint High Speed Vessels (JHSVs) are delivered. The Fiscal Year 2009 President's Budget Request includes Navy funding for the procurement of one JHSV in each of Fiscal Years 2009-2013, and Army funding for one JHSV in each of Fiscal Years 2008-2012. These new ships will replace capability provided by the follow-on HSV contract and may serve as a future replacement for the WESTPAC EXPRESS following delivery of the second vessel in Fiscal Year 2013.

Navy plans to further reduce the number of foreign-built vessels under charter in Fiscal Year 2009 and 2010, by eliminating the five Maersk (foreign-built) vessels that are part of the USMC Maritime Prepositioning Ship (MPS) program. The President's Budget Request for Fiscal Year 2009 includes funding to terminate the capital leases on three Maersk ships. Capabilities provided through the Maersk charters will be replaced by utilization of three government-owned U.S.-built Large Medium-Speed Roll-on/Roll-off (LMSR) ships.

The CARTER and the PAGE are under contract through Fiscal Year 2011 to satisfy U.S. Army prepositioned ammunition requirements. The Army anticipates a continuing requirement for vessels chartered to meet prepositioned containerized ammunition requirements, but that requirement has yet to be fully defined and validated.

Three of the foreign-built vessels in the Prepositioning Program are chartered to meet U.S. Air Force (USAF) prepositioned containerized ammunition requirements. USAF is currently reevaluating their future requirements and is expected to reduce the number of vessels required to be prepositioned.

Sealift Ships:

The VIRGINIAN was chartered to provide additional sealift of ammunition to U.S. forces in Operation Iraqi Freedom and Operation Enduring Freedom. The Joint Munitions Command does not anticipate a requirement beyond the expiration of the current contract in Fiscal Year 2011.

Military resource sponsors are currently evaluating the continued requirement for the BAFFIN STRAIT a small resupply shuttle serving Diego Garcia. Several options are under consideration, including replacing a chartered vessel with regularly scheduled liner service.

Future requirements are anticipated for the ice-strengthened containership AMERICAN TERN and the TRANSPACIFIC, a small tanker currently operating in the Far East.

V. Options to Meet Future Requirements

Time Charters of Existing U.S.-Built Vessels:

Due to scarcity in the marketplace, MSC has not recently had a new construction U.S.-built containership under long-term charter. There are only four containerships built in the U.S. in the last 10 years.[2] These ships were specifically built for the domestic market and are fully employed and unavailable for charter. Looking at the industry as a whole, not a single containership is under construction in the United States at this time.[3]

There is the potential for greater availability in the commercial tanker market. The current Jones Act tanker fleet consists of 55 vessels.[4] Nineteen of these vessels are not double hulled and will be phased out over the next ten years as a result of the Oil Pollution Act of 1990 (OPA 90) regulations. Given the number of vessels that will need to be replaced in the next ten years, the likelihood of new U.S.-built tankers being available for charter is higher than that of U.S.- built dry cargo ships.

Build and Charter of U.S.-built Ships:

Assessing the cost of a five-year build and charter program for a given class of ships is difficult because of the range of legal and regulatory barriers that currently exist. Among these restrictions are Office of Management and Budget scoring rules on leasing, Title 10 restrictions on charters, and government restrictions on multi-year funding.

As mentioned above, MSC receives and obligates customer funding annually. Beyond the current fiscal year, funding is subject to the availability of future appropriations to customer accounts.

A recent market review conducted by MSC revealed extremely limited interest in construction of purpose-built vessels using charters of five-years or less, particularly in the containership market. Because there is little demand for U.S.-built container ships in the commercial market, owners of such ships would be forced to amortize the entire additional

---

[2] Containerships Built in U.S. Shipyards. ShipbuildingHistsory.com. February 25, 2008 < http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.
[3] Current U.S. Shipbuilding Contracts. ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/today/contracts.htm>.
[4] U.S. Maritime Administration. March 17, 2008 <http://marad.dot.gov/MARAD_statistics/2007%20STATISTICS/us-flag%202006.xls>

cost of U.S. construction over the term of the DoD charter. This would result in significantly increased charter rates for DoD during the contract period.

Construction of a new purpose-built containership to meet military requirements is estimated to cost approximately $250M. Estimates are based on the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard, and adjusted to reflect the additional costs of military modifications.[5]

Aker Philadelphia Shipyard constructed the last U.S. containerships. Of note, in its 2006 annual report, the Company states that it will in the future focus solely on the construction of product carriers.[6] News reports indicate that this will keep Aker's order books full until 2012, delaying any further new construction starts for at least four years.[7] There are other U.S. Shipyards which could be considered for the construction of container ships. Only one of the first-tier shipyards (GD/NASSCO) includes a large portfolio of commercial construction. As previously stated however, the business case for these U.S. shipyards to build containerships in order to charter them for periods of five years or less, would not likely be compelling.

In contrast, there is a viable commercial market for new U.S.-built tankers such that tanker owners can anticipate commercial demand for their tankers after the end of the DoD charter period. As a result, owners have proven willing to enter into a one-year firm agreement with options to charter new U.S.-built product tankers to MSC, and in July 2007, MSC awarded a contract to USS Product Carriers LLC for the time charter of two new-build, U.S.-flagged, tankers. Total value of the contract if all options are exercised is $211.1 million. The tankers are being constructed at National Steel and Shipbuilding Company in San Diego, and will replace the current government-owned T-5 tankers which were constructed in a U.S. shipyard in the mid-1980s and will be phased out of their current service in 2010. The new tankers will deliver in 2010 and 2011.

Construction of Government-Owned U.S.-Built Vessels:

In certain cases where the military has identified a long-term firm requirement, the Navy, upon authorization by Congress, has established and funded new ship construction programs. New construction programs can take up to five years for delivery of the first vessel - two years for preliminary/contract design; one year for detail design; and two-plus years for construction.

Ship construction programs currently underway include the T-AKE Dry Cargo/Ammunition Ship Acquisition Program that will replace the aging fleet of cargo and ammunition ships in the Navy's Combat Logistics Force, and the JHSV Acquisition Program, that will provide high-speed intra-theater sealift mobility. The President's Fiscal

[5] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.
[6] Aker American Shipping. "Fourth Container Ship Successfully Delivered to Matson." *Aker American Shipping – 2nd Quarter Results 2006.* February 25, 2008 <http://www.akership.com/_upl/files/akasa0608112q06.pdf>.
[7] Aker American Shipping. "First Product Tanker Delivered from Aker Philadelphia Shipyard." February 25, 2008 < http://www.akership.com/text.cfm?Id=3-14-40-94>.

Year 2009 Budget request includes $962.4 million for the procurement of two T-AKEs, and $174.8 million for the procurement of one JHSV.

VI. Conclusion

Current DoD plans call for further decreases in the number of foreign-built ships under charter in future years. Absent emergent requirements, the total number of chartered foreign-built ships will decline over 50 percent between 2004 and 2012. Because of shifting requirements and modifications to existing DoD assets, a substantial portion of this decrease will come without requiring the construction of new vessels.

Construction of U.S.-built vessels to replace foreign-built ships under charter would require a firm long-term commitment from DoD customers. As evidenced in the Afloat Prepositioning program, evolving military requirements often necessitate changes in the size and type of vessel used for prepositioning. Therefore, there is not a compelling business case for the government or the private sector to invest in the construction of new vessels that have little commercial utility when the new vessel might not be the most appropriate platform for the mission within five to ten years of delivery.

A determination to replace the remaining U.S.-flag foreign-built vessels with new U.S.-built ships would come at a high price – through costly new ship construction and the costs associated with maintaining these ships over their service life. DoD anticipates a continued need for time chartered vessels in order to provide cost-effective flexibility in meeting those DoD requirements which do not warrant long-term commitments.

ENCLOSURE 1:

Inventory of Foreign-Built Vessels Under Contract

Ship Information

Ship Name: CORY CHOUEST

Ship Type: Ocean Surveillance Vessel

Owner/Country: Alpha Marine Services, USA

Year Ship Built: 1974

Country of Origin: Norway

Builder: Ulstein Hatlo

Documentation Country: USA

Conversion Shipyard: Larose, LA

DOD Customer: Navy Undersea Surveillance Command

Mission: Platform for Surveillance Towed Array Sensor System (SURTASS) and Low Frequency Array (LFA)

Contract Information:

Contract Number: N0003304C2000

Commencement of Contract: OCT 2003

Option Periods: one-year firm period, three one-year options and one 11-month option

Redelivery Date: 31 AUG 2008

Total Contract Costs: $52M

Future Plans:

The CORY CHOUEST is an Ocean Surveillance Ship in MSCs Special Mission Ships Program. While ocean surveillance remains a continuing requirement, the Navy does not intend to enter into a follow-on charter upon the expiration of the current contract. A government-owned, contract-operated vessel which has been specifically modified to meet the military mission will replace the CORY CHOUEST.

Ship Information

Ship Name: HSV 2 SWIFT

Ship Type: High Speed Vessel (HSV)

Owner/Country: Bollinger/Incat, USA

Year Ship Built: 2003

Country of Origin: Australia

Builder: Incat

Documentation Country: USA

Conversion Shipyard: NA

DOD Customer: U.S. Fleet Forces Command

Mission: Support Navy experimentation and real world operations

Contract Information:

Contract Number: N0003303C2006

Commencement of Contract: 15 AUG 2003

Option Periods: one-year firm period, three one-year options and one 11-month option

Redelivery Date: 14 JUL 2008

Total Contract Costs: $70M

Future Plans:

U.S. Fleet Forces Command has determined that there is a continued requirement for a High Speed Vessel (HSV) to support the Global War on Terrorism and emerging operational concepts including Seabasing and Global Fleet Station.

MSC issued an RFP for a time charter vessel to replace the HSV 2 SWIFT on 17 JAN 2008. This charter will be awarded under a full and open competition and is expected to be a one-year firm contract with options totaling 59 months if all options are exercised. Beginning in Fiscal Year 2009, the Navy plans to procure a total of five Joint High Speed Vessels (JHSV) at a rate of one ship per year. The new JHSVs are expected to provide the necessary capability to meet future requirements.

Ship Information

Ship Name: WESTPAC EXPRESS

Ship Type: High Speed Vessel (HSV)

Owner/Country: Austal Hull 130 Chartering LLC, USA

Year Ship Built: 2000

Country of Origin: Australia

Builder: Austal Ships

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: USMC

Mission: Movement of PAX and Cargo in Japan and South Korea area

Contract Information:

Contract Number: N0003306C3308

Commencement of Contract: OCT 2005

Option Periods: seven-month firm period and four one-year options

Redelivery Date: 30 SEPT 2011

Total Contract Costs: $60.5M

Future Plans:

USMC anticipates a continuing requirement for a High-Speed Vessel (HSV) in the MSC Prepositioning Program. In future years the capability may be filled with a government-owned U.S.-built Joint High Speed Vessel (JHSV). A bridge contract will be necessary to meet the requirement until a determination is made and future JHSVs joint the fleet.

The Navy plans to procure a total of five JHSVs at a rate of one ship per year, beginning in Fiscal Year 2009. These new vessels are expected to provide the necessary capability to meet future requirements.

Ship Information

Ship Name: CPL LOUIS J. HAUGE JR.

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1979

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Baltimore, MD

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1007

Commencement of Contract: SEPT 1984

Option Periods: five year firm period with four five-year options

Redelivery Date: 06 SEPT 2009

Total Contract Costs: $524.1M

Future Plans:

The CPL LOUIS J. HAUGE JR. is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: PFC WILLIAM B. BAUGH

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1979

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Beaumont, TX

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1009

Commencement of Contract: OCT 1984

Option Periods: five-year firm period with four five-year options

Redelivery Date: 27 OCT 2009

Total Contract Costs: $528.3 M

Future Plans:

The PFC WILLIAM B. BAUGH is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: PFC JAMES ANDERSON JR.

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1979

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Baltimore, MD

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1011

Commencement of Contract: MAR 1984

Option Periods: five-year firm period with four five-year options

Redelivery Date: 25 MAR 2010

Total Contract Costs: $536.7M

Future Plans:

The PFC JAMES ANDERSON JR. is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: 1ST LT ALEX BONNYMAN

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1980

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Beaumont, TX

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1013

Commencement of Contract: SEPT 1985

Option Periods: five-year firm period with four five-year options

Redelivery Date: 25 SEPT 2010

Total Contract Costs: $549.3M

Future Plans:

The 1ST LT ALEX BONNYMAN is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: PVT FRANKLIN J. PHILLIPS

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1980

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Baltimore, MD

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1015

Commencement of Contract: SEPT 1985

Option Periods: five-year firm period with four five-year options

Redelivery Date: 11 SEPT 2010

Total Contract Costs: $549.3M

Future Plans:

The PVT FRANKLIN J. PHILLIPS is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: LTC JOHN U.D. PAGE

Ship Type: Containership

Capacity: 2,600 TEU

Owner/Country: Maersk Line LTD, USA

Year Ship Built: 1984

Country of Origin: South Korea

Builder: Daewoo

Documentation Country: USA

Conversion Shipyard: Norfolk, VA

DOD Customer: U.S. Army

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N0003306C3305

Commencement of Contract: APRIL 2006

Option Periods: seven-month firm period and four one-year options

Redelivery Date: 30 SEPT 2010

Total Contract Costs: $53.7M

Future Plans:

The LTC JOHN U.D. PAGE is a munitions carrier in the Army Prepositioned Stocks-3 (APS-3). The Army anticipates a continued requirement for prepositioned ammunition.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the Army. If a yard were available to construct a purpose-built vessel for the Army requirement, the total cost is estimated to be $250M, using the

2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[8] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[9]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10.9M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the Army requirement during the ship construction period.

[8] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[9] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: SSG EDWARD A. CARTER JR.

Ship Type: Containership

Capacity: 2,600 TEU

Owner/Country: Maersk Line LTD, USA

Year Ship Built: 1985

Country of Origin: South Korea

Builder: Samsung

Documentation Country: USA

Conversion Shipyard: Norfolk, VA

DOD Customer: U.S. Army

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N00033-06-C-3306

Commencement of Contract: AUGUST 2006

Option Periods: three-month firm period and four one-year options

Redelivery Date: 30 JUNE 2011

Total Contract Costs: $49.8M

Future Plans:

The SSG EDWARD A. CARTER JR. is a munitions carrier in the Army Prepositioned Stocks-3 (APS-3). The Army anticipates a continued requirement for prepositioned ammunition.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the Army. To construct a purpose-built vessel for the Army requirement, the total cost is estimated to be about $250M. Cost estimates are derived

using the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[10] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[11]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10.9M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the Army requirement during the ship construction period.

[10] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[11] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: CPT STEVEN L. BENNETT

Ship Type: Containership

Capacity: 1,900 TEU

Owner/Country: Sealift Inc., USA

Year Ship Built: 1984

Country of Origin: South Korea

Builder: Samsung

Documentation Country: USA

Conversion Shipyard: Mobile, AL

DOD Customer: USAF

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N0003307C3000

Commencement of Contract: JAN 2008

Option Periods: nine-month firm period, four one-year options and one two-month option

Redelivery Date: 01 DEC 2012

Total Contract Costs: $48.9M

Future Plans:

The CPT STEVEN L. BENNETT is a munitions carrier in the USAF prepositioned fleet. USAF anticipates a continued requirement for this type of vessel and is currently reevaluating their future requirements in order to properly size the USAF prepositioned fleet.

A new ship constructed in the United States to meet this mission would require a firm, long-term requirement from the USAF. Recent reductions in the number of chartered vessels needed to carry a reduced volume of prepositioned ammunition demonstrates the difficulties faced in establishing a firm requirements.

To construct a purpose-built vessel for the USAF requirement, the total cost is estimated to be about $225M. Cost estimates are derived using the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[12] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[13]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the USAF requirement during the ship construction period.

[12] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[13] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: A1C WM H. PITSENBARGER

Ship Type: Containership

Capacity: 1,670 TEU

Owner/Country: Red River Holdings, USA

Year Ship Built: 1983

Country of Origin: France

Builder: Atlantique

Documentation Country: USA

Conversion Shipyard: Charleston, SC

DOD Customer: USAF

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N0003306C3301

Commencement of Contract: APRIL 2007

Option Periods: six-month firm period, four one-year options and one five-month option

Redelivery Date: 10 MARCH 2012

Total Contract Costs: $64.9M

Future Plans:

The A1C WM H. PITSENBARGER is a munitions carrier in the USAF prepositioned fleet. USAF does not anticipate a continuing requirement beyond the December 2011 redelivery date.

Ship Information

Ship Name: MAJ BERNARD F FISHER

Ship Type: Containership

Capacity: 2100 TEU

Owner/Country: Sealift Inc., USA

Year Ship Built: 1985

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: USAF

Mission: Prepositioned Containerized Ammunition

Contract Information:

Contract Number: N0003304C3302

Commencement of Contract: OCT 2004

Option Periods: One-year firm period, three one-year options and one 11-month option

Redelivery Date: 15 SEPT 2009

Total Contract Costs: $47.3M

Future Plans:

The MAJ BERNARD F FISHER is a munitions carrier in the USAF prepositioned fleet. USAF anticipates a continued requirement for this type of vessel and is currently reevaluating their future requirements in order to properly size the USAF prepositioned fleet.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from USAF. Recent reductions in the number of chartered vessels

needed to carry a reduced volume of prepositioned ammunition demonstrates the difficulties faced in establishing a firm requirements

To construct a purpose-built vessel for the USAF requirement, the total cost is estimated to be about $225M. Cost estimates are derived using the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[14] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[15]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the USAF requirement during the ship construction period.

[14] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[15] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: BAFFIN STRAIT

Ship Type: Containership

Capacity: 300 TEU

Owner/Country: TransAtlantic Lines Inc, USA

Year Ship Built: 1997

Country of Origin: China

Builder: Wuhu Shipyard

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: Navy Operational Logistics Support Command

Mission: Resupply shuttle ship for Diego Garcia

Contract Information:

Contract Number: N0003305C5500

Commencement of Contract: 11 DEC 2004

Option Periods: nine-month firm period and four one-year options

Redelivery Date: 30 SEPT 2009

Total Contract Costs: $18.8 M

Future Plans:

The BAFFIN STRAIT is a containership in the Sealift Program that is chartered to support Navy Operational Logistics Support Command. The future of this chartering requirement is uncertain. Navy Operational Logistics Support Command is currently reviewing the requirement and considering other options for meeting this mission, including replacement of the charter vessel with a regularly scheduled liner service.

Ship Information

Ship Name: AMERICAN TERN

Ship Type: Containership (ice-strengthened)

Capacity: 1,100 TEU

Owner/Country: APL America, USA

Year Ship Built: 1990

Country of Origin: Germany

Builder: VEB Schiffswert Neptun

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: USAF and National Science Foundation (NSF)

Mission: Resupply of Thule Air Force Base, Greenland and McMurdo Base

Contract Information:

Contract Number: N0003305C5546

Commencement of Contract: 01 DEC 2005

Option Periods: 10-month firm period and four one-year options

Redelivery Date: 30 SEPT 2010

Total Contract Costs: $52.9 M

Future Plans:

The AMERICAN TERN is the only ice-strengthened container ship in the MSC Sealift Program. The USAF and NSF anticipate a continuing requirement for a vessel to resupply government facilities in Antarctica and Greenland.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the resources sponsors. To construct a purpose-built vessel for this requirement, the cost is estimated to be $100 M, using the 2006 publically-released

cost for containerships built in the Aker Philadelphia Shipyard.[16] Estimates include a 15 percent increase for ice strengthening, plus a $2M adjustment for cranes and inflation. The cost was then adjusted to reflect the relative ship size.

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $6M per year, based upon recent experience with operating government-owned contractor-operated vessels.

The RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the requirement during the ship construction period.

[16] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

Ship Information

Ship Name: VIRGINIAN

Ship Type: Containership

Capacity: 1,300 TEU

Owner/Country: Sealift, Inc., USA

Year Ship Built: 1984

Country of Origin: Germany

Builder: Bremer Vulkan Schif

Documentation Country: USA

Conversion Shipyard: Anacortes, WA

DOD Customer: Joint Munitions Command, Rock Island, IL

Mission: DOD Munitions shipments in support of OIF/OEF

Contract Information:

Contract Number: N0003308C5500

Commencement of Contract: 01 OCT 2007

Option Periods: one-year firm period and three one-year options

Redelivery Date: 15 OCT 2011

Total Contract Costs: $39.8 M

Future Plans:

The VIRGINIAN was chartered to provide additional sealift of ammunition to and from the Arabian Gulf in support of ongoing operations in Iraq and Afghanistan. The Joint Munitions Command does not anticipate having a requirement beyond the expiration of the current contract.

Ship Information

Ship Name: TRANSPACIFIC

Ship Type: Tanker

Owner/Country: Transatlantic Lines/USA

Year Ship Built: 2001

Country of Origin: Turkey

Builder: Celiktekne Shipyard

Documentation Country: USA

Conversion Shipyard: Guam Shipyard

DOD Customer: Defense Energy Support Center (DESC)

Mission: Far East Petroleum Shuttle

Contract Information:

Contract Number: N0003306C5409

Commencement of Contract: 22 NOV 2006

Option Periods: one year firm period, three one-year options and one 11-month option

Redelivery Date: 22 OCT 2011

Total Contract Costs: $25.5 M

Future Plans:

The TRANSPACIFIC is a small, shallow draft product tanker that operates in the Far East providing fuel to military bases and supply depots with shallow port facilities for DESC.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the DESC. To construct a purpose-built vessel for the DESC requirement, the cost is estimated to be between $50-75 M. This is not a firm number as no oceangoing tankers of this small size have been constructed in US shipyards in more than three decades.

In terms of the cost to operate the tanker, the commercial costs are estimated to be $3.5M per year, based upon recent experience with operating government-owned contractor-operated vessels.

The RFP to award process takes approximately one year and design and construction of the vessel is estimated to take another approximately one to two years. A bridge lease would be necessary to meet the DESC requirement during the ship construction period.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to participate in the Troops to Nurse Teachers (TNT) program. In summary, the report states that the Navy is currently unable to participate in the TNT program due to its present unauthorized and unfunded state and its possible impact on vital nurse retention programs during our current heightened operational tempo.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 2? 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to participate in the Troops to Nurse Teachers (TNT) program. In summary, the report states that the Navy is currently unable to participate in the TNT program due to its present unauthorized and unfunded state and its possible impact on vital nurse retention programs during our current heightened operational tempo.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 29 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to participate in the Troops to Nurse Teachers (TNT) program. In summary, the report states that the Navy is currently unable to participate in the TNT program due to its present unauthorized and unfunded state and its possible impact on vital nurse retention programs during our current heightened operational tempo.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 29 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to participate in the Troops to Nurse Teachers (TNT) program. In summary, the report states that the Navy is currently unable to participate in the TNT program due to its present unauthorized and unfunded state and its possible impact on vital nurse retention programs during our current heightened operational tempo.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year (FY) 2008 Defense Authorization Conference Report 110-477 requested the Secretary of the Navy submit a report to the Congressional Defense Committees with the budget request for FY 2009 discussing several items related to the use of an integrated nuclear power system for the Navy's future CG(X) cruiser program. Specifically, the report is to discuss next generation cruiser characteristics, costs and schedule issues, industrial base impacts including the costs of certifying shipyards for conducting nuclear production work, impacts on the Navy's shipbuilding plan, operating and support issues, and a risk assessment.

The results of the Navy's Analysis of Alternatives (AoA) for the Maritime Air and Missile Defense of Joint Forces capability are currently within the Navy staffing process. Following approval of the AoA, the Navy will seek Milestone A approval for the CG(X) program from the Defense Acquisition Executive. Until this approval is provided, the information requested by Congress in this report is pre-decisional. As such, the Navy intends to submit this report upon completion of Milestone A, currently planned for FY 2008.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year (FY) 2008 Defense Authorization Conference Report 110-477 requested the Secretary of the Navy submit a report to the Congressional Defense Committees with the budget request for FY 2009 discussing several items related to the use of an integrated nuclear power system for the Navy's future CG(X) cruiser program. Specifically, the report is to discuss next generation cruiser characteristics, costs and schedule issues, industrial base impacts including the costs of certifying shipyards for conducting nuclear production work, impacts on the Navy's shipbuilding plan, operating and support issues, and a risk assessment.

The results of the Navy's Analysis of Alternatives (AoA) for the Maritime Air and Missile Defense of Joint Forces capability are currently within the Navy staffing process. Following approval of the AoA, the Navy will seek Milestone A approval for the CG(X) program from the Defense Acquisition Executive. Until this approval is provided, the information requested by Congress in this report is pre-decisional. As such, the Navy intends to submit this report upon completion of Milestone A, currently planned for FY 2008.

A similar letter has been sent to Chairmen Inouye, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year (FY) 2008 Defense Authorization Conference Report 110-477 requested the Secretary of the Navy submit a report to the Congressional Defense Committees with the budget request for FY 2009 discussing several items related to the use of an integrated nuclear power system for the Navy's future CG(X) cruiser program. Specifically, the report is to discuss next generation cruiser characteristics, costs and schedule issues, industrial base impacts including the costs of certifying shipyards for conducting nuclear production work, impacts on the Navy's shipbuilding plan, operating and support issues, and a risk assessment.

The results of the Navy's Analysis of Alternatives (AoA) for the Maritime Air and Missile Defense of Joint Forces capability are currently within the Navy staffing process. Following approval of the AoA, the Navy will seek Milestone A approval for the CG(X) program from the Defense Acquisition Executive. Until this approval is provided, the information requested by Congress in this report is pre-decisional. As such, the Navy intends to submit this report upon completion of Milestone A, currently planned for FY 2008.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 4, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year (FY) 2008 Defense Authorization Conference Report 110-477 requested the Secretary of the Navy submit a report to the Congressional Defense Committees with the budget request for FY 2009 discussing several items related to the use of an integrated nuclear power system for the Navy's future CG(X) cruiser program. Specifically, the report is to discuss next generation cruiser characteristics, costs and schedule issues, industrial base impacts including the costs of certifying shipyards for conducting nuclear production work, impacts on the Navy's shipbuilding plan, operating and support issues, and a risk assessment.

The results of the Navy's Analysis of Alternatives (AoA) for the Maritime Air and Missile Defense of Joint Forces capability are currently within the Navy staffing process. Following approval of the AoA, the Navy will seek Milestone A approval for the CG(X) program from the Defense Acquisition Executive. Until this approval is provided, the information requested by Congress in this report is pre-decisional. As such, the Navy intends to submit this report upon completion of Milestone A, currently planned for FY 2008.

A similar letter has been sent to Chairmen Inouye, Skelton, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 13 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2007, a total of $156,695 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Uriah P. Levy Center Landscaping, $7,641;
- Columbarium EA, $100,054; and
- Squash Courts Designs, $49,000.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Edwards, and Johnson.

Sincerely,

BJ Penn

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 13 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction
Veterans Affairs, and other Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2007, a total of $156,695 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Uriah P. Levy Center Landscaping, $7,641;
- Columbarium EA, $100,054; and
- Squash Courts Designs, $49,000.

Please let me know if I can be of further assistance. A similar letter is also provided to Chairmen Skelton, Johnson, and Levin.

Sincerely,

BJ Penn

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 13 [illegible]

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction
Veterans Affairs, and other Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2007, a total of $156,695 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Uriah P. Levy Center Landscaping, $7,641;
- Columbarium EA, $100,054; and
- Squash Courts Designs, $49,000.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Edwards, and Levin.

Sincerely,

BJ Penn

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

FEB 13 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2007, a total of $156,695 in gifts, accepted pursuant to Section 2601 of title 10, United States Code, were used on Department of the Navy facilities and infrastructure, all located at the United States Naval Academy Annapolis, Maryland. Details are as follows:

- Uriah P. Levy Center Landscaping, $7,641;
- Columbarium EA, $100,054; and
- Squash Courts Designs, $49,000.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Johnson, and Edwards.

Sincerely,

BJ Penn

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 29 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-077 requested the Secretary of the Navy to submit a report jointly with the Assistant Secretary of Defense for Networks and Information Integration; the Under Secretary of Defense for Acquisition, Technology and Logistics; and the Director of Operational Test and Evaluation of the Next Generation Enterprise Network (NGEN) system.

We have compiled the requested information for the NGEN Report to Congress. However, the joint report is currently within the Department's staffing process. As such, the Navy intends to submit this report by April 1, 2008.

A similar letter has been sent to Chairmen Levin, Skelton and Murtha. If I can be of further assistance, please let me know. In the interim, my point of contact on this matter is Dr. Gary A. Federici, DASN(C4I), at gary.federici@navy.mil.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 29 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-077 requested the Secretary of the Navy to submit a report jointly with the Assistant Secretary of Defense for Networks and Information Integration; the Under Secretary of Defense for Acquisition, Technology and Logistics; and the Director of Operational Test and Evaluation of the Next Generation Enterprise Network (NGEN) system.

We have compiled the requested information for the NGEN Report to Congress. However, the joint report is currently within the Department's staffing process. As such, the Navy intends to submit this report by April 1, 2008.

A similar letter has been sent to Chairmen Levin, Inouye and Murtha. If I can be of further assistance, please let me know. In the interim, my point of contact on this matter is Dr. Gary A. Federici, DASN(C4I), at gary.federici@navy.mil.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 29 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-077 requested the Secretary of the Navy to submit a report jointly with the Assistant Secretary of Defense for Networks and Information Integration; the Under Secretary of Defense for Acquisition, Technology and Logistics; and the Director of Operational Test and Evaluation of the Next Generation Enterprise Network (NGEN) system.

We have compiled the requested information for the NGEN Report to Congress. However, the joint report is currently within the Department's staffing process. As such, the Navy intends to submit this report by April 1, 2008.

A similar letter has been sent to Chairmen Skelton, Inouye and Murtha. If I can be of further assistance, please let me know. In the interim, my point of contact on this matter is Dr. Gary A. Federici, DASN(C4I), at gary.federici@navy.mil.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 29 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-077 requested the Secretary of the Navy to submit a report jointly with the Assistant Secretary of Defense for Networks and Information Integration; the Under Secretary of Defense for Acquisition, Technology and Logistics; and the Director of Operational Test and Evaluation of the Next Generation Enterprise Network (NGEN) system.

We have compiled the requested information for the NGEN Report to Congress. However, the joint report is currently within the Department's staffing process. As such, the Navy intends to submit this report by April 1, 2008.

A similar letter has been sent to Chairmen Inouye, Skelton and Levin. If I can be of further assistance, please let me know. In the interim, my point of contact on this matter is Dr. Gary A. Federici, DASN(C4I), at gary.federici@navy.mil.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

[illegible]

APR 14 2008

SECRET - Unclassified Upon Removal of Classified Appendix

W/ APPENDIX REMOVED

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

[redacted]

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

FEB 14 2008

SECRET - Unclassified Upon Removal of Classified Appendix

APPENDIX REMOVED

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

[redacted]

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

APR 14 2008

SECRET - Unclassified Upon Removal of Classified Appendix

APPENDIX REMOVED

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

[redacted]

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

[illegible]

[illegible] 14 2008

~~SECRET~~ Unclassified Upon Removal of Classified Appendix

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

APPENDIX REMOVED

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

[redacted]

[redacted] Unclassified upon [redacted] closure

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

[redacted]

SECRET//NOFORN [redacted]

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

[redacted]

[redacted]

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Skelton, Inouye, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

[redacted]

[redacted]

THE SECRETARY OF THE NAVY
WASHINGTON, D.C 20350-1000

April 15, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Skelton, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, Murtha, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, Murtha, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Levin, Murtha, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, Levin, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Silvestre Reyes
Chairman, Permanent Select
Committee on Intelligence
House of Representatives
Washington, DC 20515-6415

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, Inouye, Murtha, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Peter Hoekstra
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable John D. "Jay" Rockefeller
Chairman, Select Committee on Intelligence
United States Senate
Washington, DC 20510-6475

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, Inouye, Murtha, Reyes, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Christopher S. "Kit" Bond
Vice Chairman

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Rush Holt
Chairman, Select Intelligence
Oversight Panel
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, Inouye, Murtha, Reyes, and Rockefeller.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ray LaHood
Ranking Minority Member

REPORT TO CONGRESS

ON

ANGEL FIRE

Prepared by:
US Marine Corps
Marine Corps Combat Development Command
MCB Quantico, 22134-5000

March 2008

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

REPORT REQUIREMENT

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Secretaries of the Army and Navy to provide program management plans for the Constant Hawk and Angel Fire programs, including respective budget detail to the congressional defense and intelligence committees within 60 days of enactment of this Act.

BACKGROUND

The US Marine Corps' Angel Fire program is a material solution deployed in response to US Central Command's Joint Urgent Operational Needs Statement (JUONS) CC-0154 and I Marine Expeditionary Force (Forward) Urgent Universal Needs Statement (UUNS) 0635UA identifying the need for dedicated, day/night, Wide Field of View Persistent Surveillance (WFOV-PS) capabilities at the tactical level. The currently deployed Angel Fire consists of a manned, airborne platform (King Air 90), a belly mounted Electro-Optical (EO) sensor providing dawn to dusk coverage, communications downlink, and ground receive equipment. Angel Fire provides a WFOV-PS, Near Real-Time (NRT) imagery downlink to a battalion Combat Operations Center (COC), greatly enhancing situational awareness within the unit's battlespace. Angel Fire is not a USMC acquisition program of record nor is it intended to become one. It is a response to urgently requested requirements in support of the Global War on Terror (GWOT).

DESCRIPTION

Angel Fire provides a near-real time, imagery downlink covering a wide-field of view of approximately $16km^2$. This WFOV-PS capability provides battalion commanders a timely (i.e., near real-time) and unprecedented view of the battle space for planning, tactical overwatch, and effecting actions against the threat. Angel Fire imagery also supports forensic analysis and provides intelligence analysts a contextual backdrop within which disparate combat information and intelligence can be fused in both time and space.

STATUS

The currently deployed Angel Fire capability set, consisting of four contracted, EO capable King Air 90 platforms, was incrementally deployed between September and December 2007. A fifth aircraft remains in CONUS for system configuration management, testing, training, and demonstration/exercise support. For the deployed set, maintenance of sensors and communication downlink and ground receive equipment is presently provided by an Air Force Research Lab detachment of approximately twenty personnel. Technically and operationally, with the exception of occasional communications equipment malfunctions, Angel Fire has performed to expectations, and the four sensor platforms are operational. Supported units have reported Angel Fire provides significant utility for the tracking of vehicles/individuals from points of departure to location of event; determining origin of indirect fire events; overwatch of Iraqi Forces in response to significant activity reports; providing a better understanding of how anti –Iraqi Insurgents (AII) use time and space to plant IEDs; and how certain criminal elements perform black market activities. A WFOV-PS infrared (IR) sensor is now technically mature

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

and efforts are underway to develop and field an EO/IR capability supporting continuous day/night operations.

TRAINING

At the supported unit level, terminal operators (i.e., viewer client) consist of Marines and soldiers performing watch functions. Training of terminal operators is minimal, thirty minutes or less, as the graphic user interface is based on familiar screen displays (i.e., Google Earth, TIVO). Commanders and their staff can observe the imagery or have the field of imagery manipulated. To date, all training has occurred at home station, in a classroom, and during the unit's final pre-deployment exercise (MOJAVE VIPER) at Twenty-nine Palms, California. During conduct of MOJAVE VIPER for designated units, Angel Fire is also incorporated into the exercise and provides NRT WFOV-PS imagery downlink to a commander and his staff.

TECHNOLOGY

The major Angel Fire components (i.e., cameras, processors, communications links, servers, storage disks) are state of the art COTS and GOTS hardware. The uniqueness of Angel Fire lies within its software. Angel Fire is the only tactical WFOV-PS capability that takes imagery from independent camera heads, integrates them onboard, and downlinks a seamless, cohesive, meta-tagged, 16km^2 WFOV image to supported units within ten seconds of image capture. The second capability set, EO/IR, anticipated to be fielded in 2QFY09, is likewise leading edge technology and will incorporate a WFOV-PS IR imagery capability into the existing Angel Fire EO system. The gimbal on which the IR sensor resides is unique and allows for a stable platform in which the 16Mpx focal plane array sensor can step stare the field of view.

QUANTITY REQUIRED

Angel Fire was deployed in response to a UUNS and JUONS submitted by I MEF Fwd. The requirement for this capability remains, as expressed by a Marine Corps Forces Central Command (MARCENT) decision paper stipulating the requirement for two capability sets. The deployment of a second capability, consisting of five EO/IR capable King Air 90 aircraft, will extend coverage to 24/7. Both capability sets, WFOV-PS EO and EO/IR, will remain in support of Multi-National Force-West (MNF-W) until the capability is no longer needed. Upon deployment of the Angel Fire WFOV-PS EO/IR capability set, there will be a total of nine WFOV-PS King Air 90 platforms supporting MNF-W.

FUNDING (see Figure 1)

Most of the funding supporting the deployment of Angel Fire is through GWOT supplementals. GWOT funds have been used to purchase and maintain the air to ground data links, the airborne EO sensor package, the ground station, the leasing of aircraft and aircraft services, and commencing in August 2008, when management of Angel Fire shifts from AFRL to the USMC, the contracting of personnel to maintain sensors, ground data links, and the ground station.

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

$M	Prior	FY07	FY08	FY09**	FY10	Total
JIEDDO						
RDT&E		19.59	34.7			54.3
USMC						
RDT&E		16.6		0.1		16.7
PMC		8.8	15.8			24.6
O&M		15.0	16.0*	2.0		33.0
Navy R&D		4.1				4.1
AFRL R&D		8.0	8.0	5.0		21.0
QTY (Capability Sets, A/C)			1,4	2,9	2,9	
TOTAL		72.1	74.5	7.1	2	216.1

** Baseline Funding Only

= requested / programmed

* 5.9 rec'd/10.1 in GWOT request

Figure 1 – Angel Fire Funding Profile

SCHEDULE

Figure 2 represents the schedule based upon date funds are received.

TIMELINE FOR DEPLOYMENT OF ANGEL FIRE

Deployment of the second capability set, Angel Fire WFOV-PS EO/IR, depends upon when funding, for contracting aircraft/aircraft services and purchase/integration of WFOV-PS IR sensors, is received. Lead time for preparation of King Air 90 aircraft is approximately five months, followed by integration of sensors, mandated safety checks, and system testing. As with the first capability set, deployment of the second set will be incremental, with the fifth platform arriving in-theater approximately five months after the first.

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

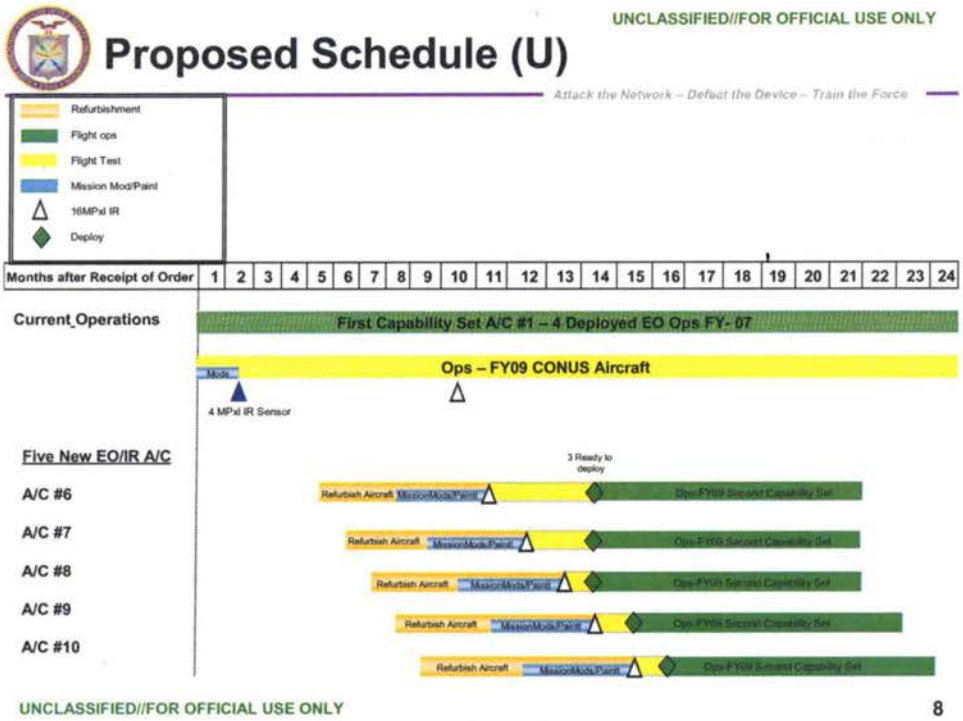


Figure 2 – Proposed Schedule for Angel Fire

WAY-AHEAD

The USAF Wide Area Airborne Surveillance Program, a new start in FY09, effectively bundles the enduring requirements of both the US Army and Marine Corps. The technical thresholds and objectives for each service's requirements link back to respective urgent requirement solutions that spawned Constant Hawk and Angel Fire and also address service considerations beyond the immediate theater focus. Increment 1 will address the USAF podded requirements. Increment 2 addresses both US Army's payload for the WARRIOR Unmanned Aircraft System (UAS) and the USMC payload for the SHADOW UAS. The fact that both the WARRIOR and SHADOW programs are managed by the same Army program office will further tie the two services together.

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction, Veterans Affairs
and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport, Florida a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Skelton, Levin and Johnson. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Zack Wamp
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Levin, Johnson, and Edwards. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport, Florida a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Skelton, Johnson, and Edwards. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction, Veteran Affairs
and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport, Florida a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Levin, Skelton, and Edwards. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

Report to Congress
On
Carrier Basing

--

Military Construction Requirements and Estimated Timetable For Completion To Make Mayport a Nuclear Carrier-Capable Homeport

Prepared by
U.S. Fleet Forces Command
April 2008

I. Reporting Requirement

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill 2008 directs the Navy to provide a report to Congress identifying the military construction requirements and an estimated timetable for completion for making Naval Station Mayport a nuclear carrier-capable homeport. This report is due no later than 30 days after release of the draft Environmental Impact Statement (EIS) which occurred 28 March 2008. Specifically, House Report 110-186 stated:

> *Carrier Homeporting.—The Committee understands that it is the Navy's publicly stated policy to maintain two nuclear carrier-capable homeports on the east coast. The Committee further understands that the Navy is in the process of drafting an environmental impact statement (EIS) that includes the evaluation of the necessary infrastructure and dredging required to make Naval Station Mayport the second such homeport in addition to Naval Station Norfolk, and that a draft EIS will be released in early 2008. The Committee directs the Navy to provide a report to the Committee identifying the military construction requirements and an estimated timetable for completion for making Mayport a nuclear carrier-capable homeport no later than 30 days after release of the draft EIS.*

II. Background

In January 2006 the Chief of Naval Operations directed Commander, U.S. Fleet Forces Command to prepare an Environmental Impact Statement (EIS) to review and assess a broad range of alternatives for homeporting additional surface ships at Naval Station Mayport. The EIS will evaluate the potential environmental impacts for each of the ship homeporting alternatives. Homeporting a nuclear-powered aircraft carrier is one of the alternatives being evaluated.

The purpose of the proposed action is to ensure effective support of Fleet operational requirements through efficient use of waterfront and shore side facilities at Naval Station Mayport.

The EIS will evaluate the potential environmental impacts for each of the ship homeporting alternatives that are under consideration:

- Cruiser/Destroyer (CRUDES) homeporting
- Amphibious Assault Ship (LHD) homeporting
- Nuclear-Powered Aircraft Carrier (CVN) capable
- CVN homeporting
- Seven different combinations of the above
- Amphibious Ready Group (ARG) homeporting
- No Action

The EIS timeline is as follows:

- 14 Nov 06: Notice of Intent (NOI) published in the Federal Register
- 5 Dec 06: Public Scoping Meeting held in Jacksonville, FL

- 14 Nov – 29 Dec 06: Public Scoping comment period
- 28 Mar 08: Draft EIS (DEIS) released to public
- 16 Apr 08: Public Hearing in Jacksonville, FL
- Nov 08: Final EIS (FEIS) released to public
- Dec 08: Record of Decision

A preferred alternative has not been identified.

III. Military Construction Requirements and an Estimated Timetable for Completion for Making Mayport a Nuclear Carrier Homeport

The DEIS states that the total of all estimated MILCON cost for alternative four, which is CVN homeporting, is $260M. This total estimate is comprised of the following: CVN maintenance facilities estimated at $177M, dredging at $48M, wharf F repairs at $19M, parking at $11M, and road improvements at $5M.

The $260M cost estimate in the DEIS released on 28 March 2008 was based on MILCON project planning from existing construction models of similar projects, and was not updated prior to publication of the DEIS to take account of more recent cost estimates resulting from Mayport site-specific cost analysis. More detailed cost analysis and siting studies have been initiated and resulted in the updated costs contained in this report. The overall resulting cost estimate in this report of $372-422M will continue to be refined as progress is made towards the Final EIS and subsequent Record of Decision in Dec 08. The Navy is in the process of refining its cost estimates (1391s), with an expected completion date of June 2008.

If an alternative is selected which homeports other classes of ships in addition to the CVN (i.e. alternatives 8, 10, or 12 of the EIS), construction costs will increase.

The estimated timetable for completion for making Mayport a nuclear carrier homeport depends on the desired date of initial operating capability (IOC), and the availability of military construction project authorization and appropriation. For example, in order to make a 2014 IOC date for CVN homeporting at Mayport, several supporting MILCON projects would need to be programmed beginning in the FY 2010 Budget.

The following details the individual MILCON projects required to support this homeporting action. Additional project details are available in the DEIS.

A. Dredging: A dredge project would be required in order to allow unrestricted access for a CVN under all ship loading and tidal conditions. The cost estimate provided in the DEIS was $48M. The current cost estimate supported by most recent cost estimate analysis remains at $48M.

B. Wharf F upgrades: Structural and utility upgrades would be required for Wharf F to serve as the maintenance berth for a CVN undergoing a Planned Incremental Availability (PIA). The cost estimate provided in the DEIS was $19M. The current cost estimate supported by most

recent cost estimate analysis is $30M based on actual detailed inspections and discovery of unforeseen structural degradation.

C. CVN propulsion plant maintenance facilities: These facilities include a Controlled Industrial Facility for inspection, modification, and repair of radiologically controlled equipment and components associated with naval nuclear propulsion plants, Ship Maintenance Facility where non-radiological depot-level maintenance on CVN propulsion plants will be performed, and a Maintenance Support Facility to house the primary administrative and technical staff offices supporting CVN propulsion plant maintenance and central area for receiving, inspecting, shipping, and storing materials.

The estimated cost provided in the DEIS is $177M. This cost does not include the cost of outfitting the maintenance facilities. The current cost estimate supported by the most recent cost estimate analysis is $250-300M. As noted above, the cost estimate used in the DEIS was based on MILCON project planning from the Navy's previous experience with similar MILCON projects at NAS North Island in 1995. The cost estimates in the DEIS did not include assessment of changes in DOD design requirements since 1995, nor site-specific differences between San Diego and Mayport. The more recent cost estimates include the following differences between the projects:

- Revised design requirements to limit/prevent water intrusion due to hurricane-induced storm surge;
- Increases in design wind loading requirements for all buildings;
- Site-specific differences in subsurface conditions requiring deeper pile driving for maintenance facility foundations;
- Site-specific reductions in design seismic loading requirements for all buildings; and
- Revised anti-terrorism standards (UFC4-010-01).

This cost estimate will continue to be refined until further detailed design work of the facility specific to Naval Station Mayport is completed.

D. Road Improvements: The main road serving the water front (Massey Avenue) would be improved to better accommodate traffic flow to and from the CVN propulsion plant maintenance facilities near Wharf F. The cost provided in the DEIS is $5M. The current cost estimate supported by most recent cost estimate analysis is $16M.

E. Parking Improvements: The laydown for the CVN propulsion plant maintenance facilities would displace existing parking. A parking garage would need to be built to replace that existing parking. The estimated cost provided in the DEIS is $11M. The current cost estimate for a parking garage for homeporting a CVN is $28M.

IV. Conclusion

The current total estimated military construction cost to make Mayport a CVN homeport is $372-422M. The estimated timetable to have Mayport ready to homeport a CVN is dependent upon receiving appropriation for all required MILCON projects. The estimated elapsed time between initial receipt of military construction funding and initial CVN homeport operating capability is

approximately 57 months, with the CVN propulsion plant maintenance facility being the project with the longest design/construction period.

The Navy has not yet identified a preferred alternative for the Mayport EIS. The Navy will fully consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives being evaluated in the EIS.

The Final EIS will contain final cost estimates which will be the result of further data analysis and completion of all project documentation.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 01 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 01 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY MAJOR SHIPBUILDING CONTRACTORS
(Calendar Year 2007 through First Quarter Calendar Year 2008)

Northrop Grumman Shipbuilding 1000 Access Road Pascagoula, MS 39567 Mailing Address: P.O. Box 149 Pascagoula, MS 39568-0149	Northrop Grumman Shipbulding Avondale Operations 5100 River Road Avondale, LA 70094 Mailing Address: P.O. Box 50280 New Orleans, LA 70150-0280
Northrop Grumman Shipbuilding 4101 Washington Avenue Newport News, VA 23607-2770	Bath Iron Works 700 Washington Street Bath, ME 04530
General Dynamics Electric Boat 75 Eastern Point Road Groton, CT 06340-4989	NASSCO 2798 Harbor Drive San Diego, CA 92113
Marinette Marine Corporation is a subsidiary of Manitowoc Marine Group, address: Marinette Marine Corporation 1600 Ely Street Marinette, WI 54143-2434	Austal 1 Dunlap Drive Mobile, AL 36602 Mailing Address: Austal P.O. Box 1049 Mobile, AL 36633

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable David Obey
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, and Byrd. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Robert C. Byrd
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Skelton, Murtha, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJP

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Skelton, Inouye, Levin, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Inouye, Murtha, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Skelton, Inouye, Murtha, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

U. S. NAVY REPORT TO CONGRESS

ON

SHIPBOARD PERSONAL LOCATOR BEACON

May 2008

I. REPORT REQUIREMENT

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 for the Department of Defense included language that directs the Secretary of the Navy to submit a report to the congressional defense committees that provides the Navy's assessment of the potential feasibility and impact of using shipboard personal locating beacons. Specifically the language inquires about the feasibility of such technology, the potential benefits of such a system, the cost associated with integrating this technology to current ships, and an estimate of the potential cost savings associated with the use of such a system.

II. BACKGROUND

The purpose of the Sailor personal locator beacon as originally conceived was to aid in the monitoring of the location of Sailors on board ships. For example, in the event of a shipboard casualty situation, the location of each individual could be automatically reported to help identify any missing personnel. The goal of such a system would be to monitor manpower locations onboard ship.

In Fiscal Year 2005, the Office of Naval Research (ONR) began researching technologies that could be used to track and monitor Sailors onboard ships. This effort was supported by a total of $2.4 million in congressionally directed RDT&E,N funding to ONR for "Shipboard Personal Locator Beacon" research in Fiscal Years 2006 and 2007. The goal of the research was to develop and demonstrate an inexpensive and simple system for improving safety and monitoring of Sailors. Communications technologies were researched that could be integrated with existing onboard communications systems and provide information without the need to install additional onboard infrastructure.

There is no present Navy requirement for Sailors to be continually located aboard ship. Sailors are mustered for the following reasons:

- Daily muster. Known as "quarters for muster, instruction and inspection." This muster is combined with other administrative and training requirements.
- Special evolutions. Sailors have specific assignments for special evolutions, such as flight quarters for helicopter operations or underway replenishment operations. When these evolutions are called away, assigned Sailors proceed to pre-designated watch stations. Watch stations report to the designated control station when they are 'manned and ready' to commence the evolution. 'Manned and ready' means that the watch station has adequate personnel on station, adequate equipment on station, adequate communications, and the personnel and equipment is ready to begin the operation.
- Warfare or shipboard casualty conditions. Similar to special evolutions, when necessary, ships call away conditions that require Sailors to proceed to pre-designated watch stations, such as setting General Quarters. Watch stations report to the designated control station when they are 'manned and ready.'
- Man Overboard. When a man overboard is called away all Sailors proceed to pre-designated mustering locations. Results are reported to a central control station. This

muster is usually completed in 7 to 10 minutes for surface combatants and small amphibious ships.

This report is based in part on the results of this ONR research, the work of the Naval Research Advisory Committee, previous reports to Congress on the subject of safety and manpower reduction, and the Navy's assessment of the relative merits of a shipboard personal locator beacon.

III. ASSESSMENT OF THE FEASIBILITY AND IMPACT OF USING SHIPBOARD PERSONAL LOCATING BEACONS

1. Feasibility of developing an automated personal location and monitoring system

Location and monitoring systems are available commercially in numerous forms and could feasibly be procured and installed, or developed. Several systems exist in industry that could track Sailor location inside an existing ship. However, on existing ships these technology solutions have been found to be cost prohibitive due to the number and configuration of different communication systems, onboard interferences, and complexity of transmitting information wirelessly through the ship hull and superstructure compartments, and are deemed of questionable value. Installation of the system would require a complete retrofit with an existing onboard wired and local area network communication system. The key issue on the feasibility of the development and fielding of this system would be on the cost effectiveness of communication and local area network interfaces, approval cycle with the Space and Naval Warfare Systems Command (SPAWAR) for this type of technology, and ensuring that there are no electronic interferences to other shipboard systems. The Navy sought to apply an existing technology to design an affordable automated personal location and monitoring system for retrofits that was not cost prohibitive and extremely complicated.

ONR's technology development and testing investments have resulted in the Shipboard Personal Locator Beacon (S-PLB) system design. S-PLB uses existing communications and safety systems already installed fleetwide to provide both safety monitoring and locating of Sailors. The research has shown that it is technically feasible to install an automated personal location monitoring system.

2. Benefits to shipboard operations and safety

The benefit of a personal locator system to shipboard operations and safety is questionable. The Navy currently has no requirement for such a system. Knowing the location of all personnel at all times does not, in and of itself, improve operations and safety. Current mustering evolutions are incorporated into the operations of the ship and are not good candidates for replacement by electronic means. For example, merely seeing, on a monitor, that all of the assigned personnel have arrived at their watch station does not inform leadership that the station is ready to commence the operation. The station will still need to follow procedures, prepare the personnel and equipment, and report 'manned and ready.' Theoretically an automated muster could provide situational awareness when a Sailor is believed to be unaccounted for. However, with the frequent changes in crew composition and inability for any automated system to be as

full-proof as a sight muster, it is unlikely that mustering requirements could be eliminated. Navy surface ships are now being outfitted with man overboard indicator devices that are specific to this situation. Because mustering is integrated to other functions on a ship and is a relatively simple and rapid process, it is not believed that replacing mustering with an automated means will improve operations or safety.

The benefit of knowing the location of personnel during non-mustering situations is also questionable. Establishing the location of an individual in a non-emergency situation would not seem to justify the installation of a locator system. Ships have many communication means including fixed and portable telephones, portable radios and announcing systems. In addition, ships are finite and organized in such a way that a ship-wide search can be conducted in a short period of time. There are also privacy concerns to be considered in the use of a technology that allows someone to know the location and track the movements of another individual at any moment in time. The capability could be easily defeated by the Sailor simply removing the device and leaving it behind while the Sailor proceeded to another location on the ship.

Locating personnel in a shipboard casualty situation could have some benefit. For example, in a scenario where a ship sustains damage and personnel casualties, a personal locator system could show the location of personnel and possibly speed medical response to the scene. However, this scenario assumes that the locator system continued to operate ship-wide after damage and that the personnel were not already deceased and were still in need of care. A locator system is unlikely to provide the complete situational picture; fool-proof location of all casualties, best access to the casualties, and condition of the casualties. Therefore, it is unlikely that a personal locator system would completely replace current procedures and investigation after damage occurs. Ships are an enclosed environment, and the task of physically locating crew members via currently existing methods is not unduly difficult or time-consuming in non-emergency or casualty situations. More analysis would be required to determine if a personal locator system could benefit operations and safety to support use in a shipboard casualty environment.

3. Estimate of the cost to develop and integrate

Because ONR has already funded development of the S-PLB, the costs associated with development and improvement of this technology should be minimal. These costs have already been incurred with support of a variety of efforts throughout the Navy and ONR. The current system could be evaluated by temporary installation on a few active ships to determine the usability of the specific hardware and the challenges associated with shipboard environment and onboard systems interfaces in interferences. Additional costs could be generated based on the results of operational testing if modifications are necessary.

The cost of integrating this system with existing ship's systems and installing on ships will vary from class to class. Typical evaluations of equipment are conducted under temporary alterations of the ship (TEMPALT). It is estimated that the evaluation installation of individual Sailor personal locator beacon systems onboard four sample ships within a class of ships for a period to include one full deployment and associated training would be:

- Hardware including individual locator beacons and required shipboard displays with network interfaces = $250k per ship;
- Contractor supported installation of localization modules and display =$80K per ship;
- Fleet support and Navy planning yards = $180K for four ships;
- Engineering support of evaluation = $250K for four ships; and
- Total estimated cost for fleet evaluation on four ships for 18 months = $1.75M.

4. Estimate of the potential reduction to manpower costs or workload

The Navy has no requirement for a personal locator system. The Navy has implemented numerous automation systems to reduce ship operating costs; however those examples replaced existing personnel or functions. There are no personnel or systems currently assigned to continually locate personnel. Therefore, there are no known efficiencies or cost savings if a personal locating system were developed and installed. Depending on the support requirement of the installed system, there is a potential that additional manpower would be required for system maintenance.

IV. SUMMARY

The technology for a personal monitoring system exists and developmental work for a ship-board application has been done. Continued integration work and shipboard testing could be conducted. However, the Navy currently has no requirement for such a system and the potential savings and benefit to operations and safety are questionable.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

SECOND QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems
Washington, DC 20376

May 2008

Table of Contents

I. Report Requirement 3
II. NOA Accomplishments: January 2008 through March 2008 3
Goal 1 – Change Naval processes and business practices 4
Goal 2 – Provide Naval OA systems engineering leadership 20
Goal 3 – Change Navy and Marine Corps cultures 24
III. Summary 25

I. Report Requirement

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, this document serves as the Second Quarterly Report to Congress on Open Architecture (OA). The scope of this report includes noteworthy Naval Open Architecture (NOA) accomplishments of the Open Architecture Enterprise Team (OAET) and individual Domains (Air; Command, Control, Communications and Intelligence (C4I); Space; Submarines; Surface; and Marine Corps) and the Anti-submarine Warfare (ASW) Community of Interest (CoI) from January 2008 through March 2008. Significant future events that are planned through December 2008 are also discussed.

The Surface Domain consists of the Program Executive Offices (PEOs) for Carriers, Littoral and Mine Warfare (LMW), Integrated Warfare Systems (IWS), and Ships. The Air Domain consists of the PEOs for Tactical Aircraft (T), Unmanned Aviation and Strike Weapons (U&W), Air ASW, Assault and Special Mission Programs (A), and Program Management (NAVAIR 1.0). The Domains for Submarines, C4I, Space, are represented by PEOs Submarines (SUBS), C4I and Space, respectively. The Marine Corps Domain is represented by Marine Corps Systems Command and includes the PEO for Land Systems (LS).

II. NOA Accomplishments: January 2008 through March 2008

The accomplishments during this period are mapped to the three NOA strategic goals which were established in the Naval OA Strategy in December 2006 and reaffirm objectives from the Assistant Secretary of Navy (Research, Development and Acquisition) (ASN(RD&A)) OA Policy of August 5, 2004 and Deputy Chief of Naval Operations (Warfare Requirements and Programs) (OPNAV N6/N7) OA Requirements letter of December 23, 2005. The strategy is comprised of three overarching goals, addressing the business, technical, and cultural aspects of OA transformation. These goals are:

Goal 1 – Change Naval processes and business practices to utilize open systems architectures in order to rapidly field affordable, interoperable systems. This goal includes addressing governance challenges; creating policy and guidance materials; developing new business models (such as the Acoustic Rapid Commercial-off-the-Shelf Insertion or A-RCI program); incorporating OA principles and practices in programs and acquisition materials such as contracts; and encouraging competition and improving interoperability by making information and design artifacts available for reuse by programs.

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs. Included in this goal are collaborative efforts in systems engineering; process standardization; leveraging OA to provide quick wins and proofs-of-concepts that provide new capabilities to the Fleet; and providing performance enhancements to fielded systems and development projects.

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles. The primary mechanisms for achieving cultural change are formal training and communications and outreach.

These goals are supported by efforts performed either across the Naval Enterprise by the OAET or within individual Domains (by PEOs, CoIs, Programs, or System Commands (SYSCOMs)). This report summarizes those efforts.

Goal 1 – Change Naval processes and business practices to utilize open systems architectures in order to rapidly field affordable, interoperable systems (e.g. policies, assessments, contracts, design disclosure, reuse of components, etc.)

a. Governance

- The OAET membership was expanded to include the LMW, Ships, and Carriers Program Executive Offices (PEOs), along with the Marine Corps Systems Command (MARCORSYSCOM), Naval Air Systems Command (NAVAIR), Naval Sea Systems Command (NAVSEA), Space and Naval Warfare Systems Command (SPAWAR), and the ASW CoI. This membership expansion was enacted to place a direct representative from these organizations in the OAET, rather than being collectively represented as was the case in the original OAET structure.
    - Established the OA Lead Council (OALC) and convened the first meeting on March 20, 2008 to discuss enterprise collaboration. The OALC consists of the PEOs from Carriers, C4I, IWS, LMW, Ships, Submarines, Space, Submarines and Tactical Aircraft (representing the Air Domain). Collectively, PEO IWS, PEO Ships and PEO Carriers comprise the Surface Domain. Other members include MARCORSYSCOM, the NAVSEA and NAVAIR OA Technical Authorities, the Deputy Assistant Secretary of the Navy for Integrated Warfare Systems (DASN IWS), NAVSEA Contracts, and the Offices of the Chief of Naval Operations (OPNAV N6F, N6R, N85, N86, N87, N88, and N091 / Office of Naval Research). The OALC will meet again in June 2008.

b. Policies / Guidance

OAET:

- In February 2008, the Secretary of the Navy established the Six Gate, Two Pass Review Process to improve Naval Acquisition Oversight. The OAET has since developed OA relevant questions to incorporate as part of program gate reviews. Incorporating questions into the review process ensures OA is addressed at appropriate milestones throughout the lifecycle. The OAET is also working to incorporate OA requirements into future revisions of the SECNAVINST 5000 series.
- As part of improving the acquisition process, System Design Specifications (SDS) was implemented concurrently with the Gate Review process. In support of this effort, the OAET provided OA language for incorporation into the SDS Guidebook.
- The OAET is actively participating in the Enterprise Data and Governance Strategy (EDGS) Integrated Project Team (IPT). The EDGS IPT was established in response to guidance from Deputy Chief of Naval Operations for Communication Networks (OPNAV N6), and Deputy

Department of the Navy (DoN) Chief Information Office, to develop actionable recommendations for presentation to the 3-Star Navy Information Technology Management Council (ITMC) for decision and Navy-wide policy implementation. A key focus of this IPT is data sharing, but the IPT will also address architectures, standards and other Information Technology (IT) and information management areas which are under OPNAV N6 / DoNCIO and ITMC cognizance. This effort will link NOA with Service Oriented Architecture (SOA) pilot projects and related acquisition efforts across the Naval Enterprise. The OAET is also coordinating with OPNAV N6 and the ITMC to extend NOA principles and practices into the acquisition and management of systems beyond National Security Systems.

Domains:

- C4I Domain
    - PEO C4I and SPAWAR 02 collaborated to add Contract Data Requirements List (CDRL) language related to OA assessment and component reuse into the Procurement Desktop Defense (PD2) system used to prepare acquisition documents. PD2 is the system used to generate Requests For Proposals (RFPs) and contract documents. This capability will enable the enterprise reuse of OA-related CDRLs.
- Surface Domain

(i) Expeditionary Warfare

- PEO LMW is responsible for the management of many programs covering wide-ranging missions from Naval Special Warfare to Mine Warfare. The variety of systems in development within PEO LMW supported the addition of a separate PEO LMW representative on the OAET. Participation on the leadership council by PEO LMW, as well as addition of an LMW Domain Action Officer and Representative to the OAET has been effected in the last quarter.

(ii) PEO IWS

- PEO IWS is working with NAVSEA Code 02 (Contracting) to include OA language in SYSCOM guidance such as the NAVSEA Acquisition Planning Guide and Acquisition Strategy Guide. Additionally, PEO IWS is developing a *Surface Navy Combat Systems Strategy for Achieving Open Architecture Acquisition Management Plan* that will include substantial OA guidance and serve as a master strategy for combat system development. It is expected to be completed in June 2008.

- Space Domain
    - PEO Space is collaborating with OPNAV N6 and SPAWAR to explore the potential for Software Reconfigurable Payloads (SRP) on future space missions. SRP has the potential to avoid the need to launch new satellites to achieve responsiveness to evolving threats and satisfy operational needs in a timely manner at nominal cost.

- Submarine Domain

    - The Submarine Domain has initiated training for all submarine Program Offices on the Open Architecture Assessment Tool v1.1 (OAAT v1.1). The assessment tool includes the Modular Open System Approach (MOSA) Program Assessment and Rating Tool (PART) review (required for Milestone Decision Authority Review). All Submarine Domain Program Offices are expected to complete assessments using the OAAT v1.1 by July 2008. The assessments will include PMS 415 (Counter Measures) and PMS 404 (Torpedoes). The addition of these two Program Offices will bring Submarine Domain's assessment number from six major programs to eight.

- Marine Corps Domain

    - MARCORSYSCOM updated the Marine Corps Statement of Work (SOW) and CDRL and Tracking Tool (SCATT) to incorporate language contained in the *Naval Open Architecture Contract Guidebook for Program Managers* in March 2008. SCATT is a contracting support tool available to all Marine Corps project officers, and is used as SOW and CDRLs are being generated. Automated tools provide ability to provide advice, timed for when that advice is most likely to be needed.

- ASW CoI

    - The ASW CoI is defining OA-driven software development and reuse governance policies and metrics. The CoI is also developing ASW Family of Systems capabilities under the guidance of the Navy Enterprise Architecture and Data Strategy Policy and EDGS IPT.

c. <u>New Business Models Developed</u>

- Air Domain

    - The program manager for Advanced Tactical Aircraft Protection Systems (PMA 272) is responsible for providing Electronic Warfare (EW) self-protection systems for all Marine Corps and Navy combat aircraft. PMA 272 currently manages the acquisition of 16 different radio-frequency (RF) countermeasure and infrared countermeasure products used to protect 29 types of fixed- and rotary-wing aircraft. PMA 272 is applying OA principles to facilitate a reduction in the diverse number of fielded stand-alone self-protection systems. Every 24 months, legacy systems will be incorporated into one of two integrated EW suites with common components, one for strike aircraft and one for assault and larger aircraft which will replace the current panoply of systems. The goal is to field EW equipment that is modular and scalable and uses common hardware and software across a range of different aircraft to counter a variety of future threats.
    - In concert with the common component approach, PMA 272 has implemented an OA approach to EW systems called Common Aircraft Protection System. This system provides a common infrastructure for all of the aircraft on which to "hang" different EW

components. It will be achieved by developing a set of specifications that defines the interfaces, services and supporting formats required for a component, such as a missile warning system or RF jammer, to be able to plug into the EW system. This 'plug and protect' approach will provide the ability to add a new component or function to each different aircraft's EW system and have it work automatically without having to do any technical analysis or manual reconfiguration. The Interface Control Documents embodying the specifications will be based on widely supported industry standards, especially for key interfaces, and suppliers will be able to engineer their EW components to comply with these standards.

- C4I Domain

  - Integrated Shipboard Network System (ISNS) (Fiscal Years 2008 through 2010) and Consolidated Afloat Network and Enterprise Services (CANES) (Fiscal Year 2010 and out years) – The common theme throughout PEO C4I's Master Plan is the reduction, or necking down, of systems in every enclave across the C4I Domain and reusing the same terminal, network, computing environment for all functions and security levels. This approach is expected to reduce development, test, procurement, installation, training, and support costs. ISNS will deliver a Common Computing Environment (CCE) (over Fiscal Years 2008 through 2010) and begin a migration toward CANES (beginning in Fiscal Year 2010 and continuing in the out years) which will build on ISNS, and deliver CCE, Cross Domain Solutions across multiple security levels, and core SOA services beginning in Fiscal Year 2011.
  - By moving C4I programs to a CCE architecture with smaller, CoI service capabilities riding on that infrastructure, PEO C4I intends to make the spiral development cycle much shorter for the Command and Control and Intelligence / Surveillance applications. In addition, by using an incremental build approach, mature technologies can be rapidly fielded at lower risk. In Fiscal Year 2008, there are three ISNS / CANES migration efforts to highlight: Risk Reduction Experimentation, the CANES Early Adopter Process and the planning of Early Adopter installations in operational strike group ships.
    - As a way to reduce risk, the ISNS program will put its software, products and services in Limited Technical Experimentation and Limited Objective Experiment events in which ISNS and CANES migration developmental products are used by operational forces from both the Navy and Joint Services. In Fiscal Year 2008, the experimentation will be Maritime Operations Center-based and focus on Joint / Maritime operational-to-tactical command and control challenges, and rapid, smooth, dynamic, agile Joint / Maritime Force integration.
    - An Early Adopter is an application or system that is a 'stepping stone' to CANES migration and will be worked through ISNS in Fiscal Years 2008 through 2010. Presently, 21 potential candidate programs have been identified from existing applications and more candidates are expected. The Early Adopter Process is another CANES migration risk reduction effort that will be essential to a seamless capability transition. The Early Adopter process is also integrated with the CANES Joint Capabilities Integration Development System (JCIDS) process; Early Adopter inputs are currently

feeding the CANES Capability Description Document (CDD).

- OPNAV challenged PEO C4I to install ISNS / CANES migration Early Adopters on an operation Expeditionary Strike Group or Carrier Strike Group in Fiscal Year 2009. A Cross Enterprise Strike Team was established to address the Fiscal Year 2009 Strike Group selection and recommended the Lincoln Strike Group for the first Early Adopter network installation. Planning efforts are underway to support the successful Fiscal Year 2009 USS Lincoln Strike Group Early Adopter installations as part of the ISNS / CANES migration risk reduction efforts.

- CANES epitomizes the necking down approach by migrating four shipboard network programs down to one common shipboard network and common services; it meshes with the Defense Information System Agency's Net Centric Enterprise Services as well as the PEO IWS's efforts towards a common computing environment and the PEO Enterprise Information Systems' Next Generation Enterprise Network. The business approach to the CANES program is based on a Competitive Business Model which mirrors industry's movement towards SOA, which is expected to result in lower costs for Future Capability. CANES Increment One Initial Operational Capability is scheduled for Fiscal Year 2011; Low Rate Initial Production will be in Fiscal Year 2012 and Full Rate Production will start in Fiscal Year 2013. CANES Increment Two Milestone C is expected in Fiscal Year 2015.
- PEO C4I recently held the second CANES Industry Day (March 19, 2008) attended by over 500 industry attendees from more than 160 companies. The objective of the event was to prepare industry for a draft RFP release this summer. Industry attendees submitted approximately 120 questions that will be evaluated and addressed.

- Surface Domain

(i) Expeditionary Warfare

- PEO LMW has initiated development of a Mission Module OA Business Model Guide. The purpose of this document is to provide an overview of the Mission Module OA Business Model, and document organizational relationships, reporting responsibilities and required deliverables. This guide is in the early stages of review and will be released in Fiscal Year 2009.
- The Joint Counter Radio Controlled Improvised Explosive Device Electronic Warfare (JCREW) spirals 3.1 and 3.2 leveraged modular open system architecture contract language to minimize cost and maximize performance and upgrade ability. The first Spiral 3.1 system is to be delivered in November 2008. JCREW Spiral 3.3, next generation suite, will promote open business and architecture concepts with contractual language.
- PEO LMW Mine Warfare Program Office (PMS 495) is developing Organic Post Mission Analysis for Mine Countermeasure systems, integrating five legacy software components into a common architecture and graphical user interface. The program office is also developing requirements for a Life Cycle Sustainment facility (integration lab) and is establishing processes for technology insertion (TI) utilizing open business and open technical architecture principles.

(ii) PEO IWS and PEO Ships

- DDG 1000 (USS Zumwalt) Open Systems Management Plan (OSMP) was completed in March 2008. This plan captures the architectural, technical, process, and business practices in support of open systems development. Its creation is consistent with the recommendation of the Naval OA Contract Guidebook for Program Managers that such a plan be a deliverable required in the CDRL.
- PEO IWS is developing a Surface Navy Combat Systems Architecture Description Document (ADD) detailing the framework for guiding the PEO's transformation from delivering uniquely designed systems for U.S. Navy surface ships to a combat system product line. This objective architecture will be released to the Surface Navy Community in 4th Quarter Fiscal Year 2008. The ADD will align with, and be managed in concert with, other Naval and Joint enterprise architecture and standards initiatives, as they are defined, to support reuse of common core assets across the larger Naval, Joint and coalition community and interoperability with other Naval, Joint and coalition in a net-centric environment. This is being done in an evolutionary fashion with ultimate instantiation of forward-fit in CG(X) and back-fit in other platforms.
- PEO IWS initiated a Value Stream Analysis in January 2008 with the goal to develop a Future State Process for Enterprise Software Development and Delivery. The first session resulted in a baselined "As Is" state set of metrics for CG modernization. The focus of the follow-on session is on defining a software development process that can deliver Advanced Capability Builds (ACB) to the Surface Navy every two years and identify challenges in making the ACB process a reality for the Surface Navy community. The ability to deploy new capabilities more rapidly to the Fleet is a foundational step for the *Surface Navy Combat Systems Strategy for Achieving Open Architecture Acquisition Management Plan* being developed.
- PEO IWS is responsible for the Common Display Services (CDS) and Common Processing Services (CPS) programs that provide core Display and Processing services in support of the common objective architecture for combat systems and Surface OA Way Ahead. The CDS contract was awarded in November 2007 while the CPS RFP was released in March 2008. Both CDS and CPS provide component elements to the objective architecture being defined in the ADD.

- Space Domain

  - Exploring SRP systems engineering efforts as potential solutions for the development of future space systems. SRP could be embedded on a satellite, in its ground infrastructure system or in both. It is designed in a modular, flexible, and extensible manner such that it efficiently utilizes size, weight, and power allocations that are available on the spacecraft or other payload / platforms. SRP is a promising concept and the feasibility of implementing it for the Mobile User Objective System (MUOS) ground infrastructure is being explored. SRP could offer the ability to expand competition in satellite development and maintenance by allowing separate vendors to construct the spacecraft and develop or upgrade the payload. Without the complexity of building the entire spacecraft, more companies will be able to compete, program or upgrade the SRP,

increasing innovation and reducing costs. SRP technology could also be used on other Naval platforms like Unmanned Autonomous Vehicles to improve communications and the performance of other missions in a dynamic battlefield environment.

- Submarine Domain

  - PEO SUBS began updating its OA implementation business model three years ago with the goal of increasing focus on the Fleet's Training, Tactics and Procedures requirements. Instead of introducing major capability improvements on an annual basis, PEO SUBS will now provide bi-annual capability improvements while delivering "service packs" every other year to afford more time to "train the trainers" on the new capabilities. The first submarine to be delivered under the new service pack model will be the USS Boise (SSN 764) in August 2009.
  - PEO SUBS has also embarked on a common procurement approach for all "dry end" processing systems, featuring the established OA standards in a SOA that promotes the sharing of processing resources among subsystems. This also enables increased Operational Availability while reducing Life Cycle Costs. Similarly, a common contracting approach to the "wet end" sensor contract approaches without inboard processing requirements, leaving that development work to the inboard subsystems.
  - PMS 435 is migrating Imaging, Electronics Surveillance Measures and Photonics programs to the A-RCI business model for TIs and Advanced Processing Builds (APB). PMS 435 developed a hybrid business model that combines elements of the Submarine Domain's TI and APB business models to address some of the unique requirements within these programs. PMS 435 will institute a TI every four years with a Capability Insertion (CI) every two years. TIs will include major hardware investments with new software builds (i.e., APB) while a CI can include hardware and/or software builds (i.e., APB). CIs are dependent on current and proven technology within the market, program funding, and submarine installation requirements. PMS 435 is now synchronizing the CI / TI business model with PMS 425 AN/BYG-1 and PMS 401's A-RCI TI/APB business model.
  - Designs for Virginia Class submarines TI-08 modernization started last quarter. PEO SUBS is addressing the migration or merging of Virginia Class submarines into the TI / APB modernization cycle. The migration of Virginia Class submarines is relatively easy; however, there are inherently unique requirements with bringing a new class and design to the existing business model. TEAMSUB Program Offices and other Program Acquisition Resource Managers within the PEO IWS, C4I, and Contractor Furnished Equipment communities are working together to insure that Virginia Class submarines maintain an OA approach during their TI-08 modernization cycle.

d. <u>Programmatic Changes</u>

- Air Domain

  - The Air Domain Technical Authority (NAVAIR 4.5) conducted a MOSA PART Assessment on the Joint Precision Approach and Landing System (JPALS) ACAT 1D program. The results from this assessment provided valuable information and insight

into the program's approach and maturity in support of the upcoming Milestone B decision process (scheduled for June 2008). A senior analyst at Deputy Undersecretary of Defense (Acquisition and Technology) Systems and Software Engineering / Assessments and Support stated the "JPALS program documentation reflects an exemplary degree of awareness, understanding, and planning for effective MOSA/OA application." Additionally, it was noted that the JPALS contract strategy included requirements drawn from the *OA Contract Guidebook for Program Managers.*

- PEO Tactical Aircraft (PEO T) is collaborating with OPNAV N88 and Headquarters Marines Corps regarding the development of an EW OA self-protection system for light aircraft.

- C4I Domain

  - In addition to the CANES effort mentioned earlier, PMW 770 conducted an OA Assessment on a Science and Technology Program titled 'Communications at Speed and Depth' during the quarter. The results and knowledge learned from this assessment will provide valuable information to support the program's upcoming Milestone B meeting, scheduled for April 2008. Engaging this program early in the acquisition life cycle has identified areas within the program where openly available interface standards can be utilized more extensively during the system design and development phase.

- Surface Domain

(i) Expeditionary Warfare

  - PMS 495 (Mine Warfare Program Office) completed an OA Assessment of one ACAT I and four ACAT II organic mine warfare programs in August 2007. The study assessed the extent that OA practices were used and the degree to which open business processes were implemented. In response to recommendations contained in the assessment, PMS 495 is transitioning from a system-centric to a mission-centric (enterprise) view where product improvement and TI decisions will be applied to optimize mission performance.

(ii) PEO IWS

  - PEO IWS has implemented Program Manager-to-Program Manager Agreements that are designed to result in an alignment of the configuration process for the Surface Fleet's combat systems. The following agreements have been reached to date:
    - PEO SHIPS / PEO IWS: FOR CG AND DDG MODERNIZATION, June 5, 2007. Establishes roles, responsibilities, and deliverables between PEO Ships and PEO IWS for the execution of the CG and DDG Modernization programs in accordance with alterations approved within the Navy Modernization Process.
    - PEO IWS / NAVSEASYSCOM, SEA 21: FOR IN-SERVICE MINE / AMPHIBIOUS / AUXILIARY (MAAC) SHIP COMBAT SYSTEM MANAGEMENT, July 27, 2007. Establishes roles, responsibilities, and deliverables between NAVSEA SEA 21, MAAC Ship Program Manager

(PMS 470) and PEO IWS 1.0 for life cycle management of MAAC ship Combat Systems (CS) to include sustainment and modernization of applicable CS elements.

- PEO SHIPS / PEO IWS: FOR NEW CONSTRUCTION AMPHIBIOUS SHIP COMBAT SYSTEM MANAGEMENT, July 27, 2007. Describes the roles, responsibilities, and deliverables between Program Executive Office, Ships (PMS 317 and PMS 377) and PEO IWS 1.0 in the planning and execution applicable to Combat System Government Furnished Equipment and Information in support of New Construction Amphibious Ship Programs.
- PEO CARRIERS / PEO IWS: FOR CARRIER COMBAT SYSTEM MANAGEMENT, July 31, 2007. Establishes roles, responsibilities, and deliverables between PEO Carriers (PMS 312 and PMS 378) and PEO IWS 1.0.
- PEO SHIPS / PEO IWS: FOR DDG 1000 Zumwalt Combat System Management, November 7, 2007. Describes the roles, responsibilities, and deliverables between PMS 500 and PEO IWS 1.0 for planning and execution of the DDG 1000 Zumwalt Class destroyer program.
- PEO SHIPS / PEO IWS: FOR CG(X) Combat System Management, November 7, 2007. Establishes and allocates the roles, responsibilities, and deliverables between PMS 502 and PEO IWS 1.0 for the planning, requirements development, design and execution applicable to support the CG(X) Program.
- PEO SHIPS / PEO IWS Memorandum to ASN RD&A: STATUS OF LITTORAL COMBAT SHIP (LCS) PM-TO-PM AGREEMENT, November 7, 2007. This memorandum documents the intention of PEO IWS and PEO Ships to pursue a future Program Manager-to-Program Manager Agreement for LCS after the follow-on ship plan is determined.

As a result of this alignment, the Navy should realize better development and fielding cycles while retaining its ability to produce preeminent combat systems. There were no new agreements signed between January 1st and March 31st.

- PEO IWS is collaborating with other communities including PEO C4I, PEO Ships, the ASW CoI, and NAVAIR to achieve greater commonality and efficiencies in how combat systems are developed and evolved in a net centric environment. A PEO IWS / PEO C4I Technical Interchange Meeting (TIM) was conducted in January 2008 to begin the process of integrating the Surface Combat Systems Architecture and PEO C4I Roadmap efforts. As a result of the TIM, PEO IWS is exploring opportunities to achieve alignment with the PEO C4I CANES effort through common displays and processing solutions.
- PEO IWS, MARCORSYSCOM and PEO LS are presently assessing the feasibility of sharing common components between Ship Self Defense System (SSDS) MK 2 and Marine Corps Common Aviation Command and Control System (CAC2S) computer programs in order to leverage Service investments in required system upgrades and reduce overall life cycle costs.

- Submarine Domain
  - PEO SUBS received new requirements from the Submarine Tactical Requirements Group

that realigned APB-09 advanced development efforts to better meet fleet priorities and schedules and improve execution of training prior to introduction of the upgrades. Additionally, PEO SUBS created a new billet – Team Submarine Deputy Technical Director – with the expected result to improve submarine combat system engineering practices and strengthen coordination across all submarine systems.

- PEO SUBS has also restructured its near and far term procurement actions to feature Open Systems Architecture breaking out imaging processing from its wet end sensor based procurement with emphasis on a SOA to be issued as Full and Open Competitions. PEO SUBS will be using a similar approach on future procurements as well.

- Marine Corps

  - Subsequent to the assessment submitted in the 1st Quarter of Fiscal Year 2008, the Distributed Common Ground System-Marine Corps (DCGS-MC) program modified its Technical Development Strategy and MOSA approach as a result of increased awareness of OA. Program Management Office training plans are being developed to ensure the staff completes the appropriate training through the Defense Acquisition University (DAU) and other on-line Department of Defense sources.

- ASW CoI

  - The ASW CoI is developing software governance policies modeled after the Software Engineering Institute's Software Product Line concept. These policies are being tailored to the defense acquisition environment with multiple programs, software developers and users from different organizations working together. The ASW CoI is also working with the Surface Combat Systems Objective Architecture as well as the Department of Defense CoI Forum and with other CoIs working in related areas.
  - PEO IWS and PEO C4I collaboratively identified core services and hardware for near term (Fiscal Year 2009) implementation of ASW Command and Control Undersea Warfare Decision Support System (USW DSS) applications as a CANES early adopter. This agreement confirms PEO IWS and C4I's commitment to SOA and open, agile, service based solutions.

e. <u>Contracts Targeted / Changed to Include OA Requirements</u>

- Air Domain

  - PMA 290, the Maritime Patrol and Reconnaissance Aircraft program office, inserted OA language into the CDD and in a Broad Agency Announcement (BAA) released to industry in January 2008 for the EP-X program. EP-X, the proposed replacement for the current EP-3 aircraft, is at a pre-technology development phase. Three companies are on contract. The purpose of the BAA is to allow vendors to look at the Navy requirements and develop a preferred systems concept. OA language was inserted into the BAA from a rapid reconfigurability perspective. A final vendor deliverable is expected in the mid-July timeframe.
  - The Presidential Helicopters program office, PMA 274, is identifying key interfaces for

the VH-71 helicopter from an OA perspective. The contract documentation for the VH-71 is also being assessed to determine what OA contract language can be inserted into the program to support Increment 2, starting in Fiscal Year 2009.

- The Aerial Target Systems Program Office (PMA 208) has included OA contracts language in the RFP, Statement of Objectives and Performance Specification for the Multi-Stage Supersonic Target ACAT IV M program.
- PMA 272 is including OA language in the acquisition documentation for Joint Allied Threat Awareness System.
- The program manager for the Hawkeye, Advanced Hawkeye and Greyhound Program Office (PMA 231) is including OA language in the E2 Hawkeye Core OA Functional Component Interface RFP, SOW, and Performance Specification.

- C4I Domain

  - Future Command and Control: Inserted OA language into the Request for Information (RFI) to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors.
  - Automated Digital Network System (ADNS) Increment III: Program assessment and reuse CDRLs were incorporated into the Low Rate Initial Production planning phases.
  - Global Positioning System Based Positioning, Navigation and Timing Service: OA language inserted into the RFI to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors.
  - Naval Integrated Tactical Environmental Subsystem Next Generation (NITESNext): Inserted OA language into the SOW identifying modular design and design disclosure as critical factors in evaluation. Existing NITES and other meteorological software components to be evaluated by vendors as potential reuse candidates.
  - Distributed Information Operations – Services: Inserted an approach for migrating deployed applications to greater degrees of net-centricity and interoperability into the SOW.
  - Distributed Common Ground System ((DCGS) Information Backbone (DIB): Net-centric program assessment completed; results helping to refine DIB SOW to further promote interoperability and secure information exchange.
  - Digital Modular Radio: OA language in SOW to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors
  - Submarine High Data Rate: Global broadcasting precision navigation timing system – included OA language in SOW to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors. Program assessment and re-use CDRL requirements were incorporated into the acquisition strategy / acquisition planning efforts.

- Surface Domain

(i) PEO IWS

  - Common Display System (CDS) Display Consoles – Two contracts were awarded to provide CDS Display Consoles in support of the DDG 1000 and Aegis

Modernization. The CDS is a family of displays that will be implemented across platform systems on Navy surface ships, submarines, and aircraft. Display consoles provide a common human machine interface to the Platform OA Computing Environment. The contracts were competitively procured via full and open competition.

- DDG 1000 (USS Zumwalt Class) new contracts, Detailed Design Integration Mod and Mission System Equipment, have implemented the Naval OA Contract Handbook language and went through an OAET review for compliance; expected contract definitization is in the 3rd Quarter of Fiscal Year 2008.
- A task order under a previous openly-competed contract was issued to the OA Track Manager Systems Integrator / Design Agent to develop a common track manager and common system track server for all Surface combat systems. Additionally, an RFP for CPS was released on March 28, 2008.

- Space Domain

  - PEO Space Systems is working to better define and streamline its Small Business Innovative Research (SBIR) topic development processes, which includes the incorporation of OA language and alignment with the PEO investment strategy. Updated processes are expected to be in place for the SBIR in Fiscal Year 2009 solicitation cycles.

- Submarine Domain

  - PEO SUBS plans to re-compete its Sonar, Tactical Control, Weapons Control, Imaging, Torpedo, and Next-generation Countermeasure in the next 18 months. PEO SUBS is structuring each competition in a common manner that implements the OA guidance language and will re-use as much as possible from one program to the other. The expected effect is less work for both the Navy and industry contracting and programmatic units.
  - An Industry Day was held to address the Integrated Submarine Imaging System and another for the overall Team SUBS that introduced industry to planned procurements in PEO SUBS.
    - Future Industry days will be held for Tactical / Weapons Control and Acoustics procurements.
    - A draft RFP will be released for each individual procurement to solicit industry's feedback to build a better understanding of the requirements and to refine the approach being implemented.
  - PEO SUBS has extended its OA by awarding the MK 54 Lightweight Torpedo's Advanced Development to a small business.
  - PEO SUBS incorporated the OA guidance language on a Sole Source Photonics Mast Procurement. PEO SUBS also has incorporated the OA guidance language into its common procurements that are in process for Imaging and other Submarine Combat Subsystem competitions.

- Marine Corps

    - A contract modification to support Joint Tactical Common Operational Picture Workstation Client and Gateway was implemented in March 2008. This modification provides engineering support to partially re-architect the Command and Control Personal Computer. All new development and re-architecting will be consistent with OA requirements.

f. Artifacts Published / Disclosed to Improve Interoperability and Encourage Competition

OAET:

- PEO C4I Net-Centric Enterprise Solutions for Interoperability (NESI) is collaborating with the PEO IWS Software, Hardware Asset Re-use Enterprise (SHARE)) Team to develop a common federated search capability for the NESI Collaboration Site and SHARE Repository; this will facilitate the discovery of existing software assets and ongoing developmental efforts by program offices desiring to reuse software.

Domains:

- Air Domain

    - The E-2C Hawkeye Early Warning and Control Aircraft program is in the process of submitting Multi-Sensor Integration (MSI) and Automatic Identification System (AIS) artifacts to SHARE auditors for preliminary intellectual property scans prior to submission into SHARE in April 2008. For the MSI component, the following artifacts will be added to the SHARE Repository: Interface Description Document, System Segment Specification, Software Requirements Specifications (SRS), the component's white paper, master requirements listing, and the component source code. For the AIS component, the following artifacts will be added to the SHARE repository: Software Project Management Plan, Software Development Plan, SRS, presentation material, financial progress reports, component model repository, and the component source code. All of the artifacts provided to the SHARE repository are government owned property.

- C4I Domain

    - Facilitated the release of the Joint Tactical Radio System (JTRS) Information Repository Scan Tool suite which contains 113 artifacts available for reuse via access to the NESI Collaboration Site and SHARE repository. Posted 198 more artifacts in the NESI Collaboration Site during January and February of 2008.

- Surface Domain

(i) PEO IWS

- The following actions have been taken related to the SHARE repository and in re-using assets and artifacts during the period of January through March 2008:[1]
  - Updated the SHARE license agreements based on user experience;
  - Designed, implemented and installed automated metadata description sheet on SHARE to facilitate future search capabilities;
  - Evaluated a commercial scanning tool, PowerGrep to reduce time auditing assets (tool is being installed in near future for use by audit team);
  - A total of 63 assets (containing over 18,018 artifacts) have been made available in SHARE;
  - Processed 35 registration applications (January - March 2008);
  - Total registrants to date = 200 government / industry;
  - Conducted three audits on asset submissions (two in process);
  - Processed two requests for assets (January - March 2008);
  - Received 25 requests for assets (January – March 2008);
  - Total requests for SHARE assets to date = 260; and
  - Total number of assets submitted for availability on SHARE = three.
- PMS 500, PEO IWS 1A3 and the Office of Naval Research collaborated with PEO IWS-7 and submitted the Composite Combat Identification, Common Reasoning Algorithm into the SHARE repository process in January 2008 for future ship class consideration.
- PEO IWS-6 is currently processing 27 Common Network Interface Flight 0 Software design artifacts for inclusion into SHARE. Late in the 1st Quarter Fiscal Year 2008, PEO IWS 6 processed the check out of 28 Aegis software design specifications for Single Integrated Air Picture (SIAP) Systems Integrator / Design Agent (SIDA) use. Also processed the addition of 20 SIDA software design and code assets resulting from the use of the retrieved SHARE artifacts mentioned above. As a follow-on effort, also for SIAP SIDA use, PEO IWS-6 is processing check out request for Aegis Display Systems B5 spec.
- PEO IWS-6 has submitted the Cooperative Engagement Capability (CEC) Baseline 2.1 USG x-A software specifications into SHARE. This CEC baseline upgrade incorporates decoupling of the system hardware and software providing greater ease of upgrade and computer processing expansion.
- PEO IWS-7C (Training Systems Directorate) submitted applications and artifact documentation for the Multi-Mission Team Trainer system to SHARE during this period.

[1] **Artifact**: Products of a system/software development life cycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

(ii) PEO Ships

- The Zumwalt OSMP was completed and reviewed on March 18, 2008. This plan, prepared in accordance with the *Naval OA Contract Guidebook for Program Managers*, and delivered as a CDRL item, captures the architectural, technical, process and business practices in support of open systems development.

- Space Domain

  - Made the MUOS waveform available to other JTRS contractors within the JTRS Information Repository. The waveform software is approximately two million software lines of code.

- Submarine Domain

  - PEO SUBS is establishing a common Technical Information Center to support the in process procurements for Imaging, Tactical Control, Weapons Control, and Sonar Systems.
  - Developed web-based tools, located within the Contractor Integrated Technical Information System, to be used to support interoperability among subsystems within the Submarine, PEO IWS and C4I domains:
    - Web Integration and Test Tool (WITT), is based on the Open System Interface model for an expandable environment. Features include automated test procedures with built-in reuse; early Systems Test and Integration planning suite; universal interface debug tools; online test pass / fail recording with automated Verification and Validation; and Dashboard style, drill down technical and programmatic metrics tool.
    - Web Interface Product Tool (WIPT), works closely with the WITT to produce Group Requirements List, Group Data Dictionary, Interface Definition Language, and Interface Integration Database for subsystem integration to the tactical network.

- Marine Corps

  - Encouraged review of assets available in SHARE and NESI at DCGS-MC Systems Engineering Working Integrated Product Team and at Army / Marine Corps Command and Control / Situation Awareness Convergence study meeting sequences. System capabilities such as CAC2S and the emerging Marine Air Ground Task Force Command and Control systems rely in part on re-use of systems developed both by other Naval Enterprise Domains and by other military services.
  - Established initial contact between Product Group 10 / Total Force Information Technology Systems / Electronic Business Systems Team and the PEO IWS SHARE Team to discuss possible interface of a MARCORSYSCOM Information Technology system with SHARE and NESI.

- ASW CoI

  - The ASW CoI has recently employed the Advanced Interactive Management Technology Center facility at the Naval Underwater Warfare Center to publish Increment One of the ASW CoI Data Model via web services. USW DSS has already placed artifacts on this website.

g. Components Reused to Reduce Cycle Time, Risk and Increase Affordability

- C4I Domain

  - Reused 128k lines of Navy-owned code and 25k lines of code from a U.S. Army program to deliver two new capabilities for the Automated Digital Network System.

- Surface Domain

(i) Expeditionary Warfare

  - The LCS's Mission Package Computing Environment (MPCE), being developed by PMS 420, is an open system in accordance with the IWS Objective Architecture. The MPCE utilizes a modular design with standard interfaces that enables integration with two distinct combat systems. The ASW Mission Package utilizes 85 percent imported code from existing sources.
  - PEO LMW (PMS 495) has selected the expendable Archerfish mine neutralizer as the common neutralizer for both airborne and surface mine neutralization applications.
  - PEO LMW (PMS 480) designed the Shipboard Protection System (SPS) with an OA integration capability allowing it to more easily integrate peripheral system components (such as Acoustic Hailing Device and Electro-Optical / Infrared or EO/IR).
  - PEO LMW (PMS 485) has implemented OA principles in developing the Integrated Common Processor (ICP) for the Integrated Undersea Surveillance System. ICP has capitalized on much of the effort undertaken by the Navy's A-RCI program. ICP and A-RCI share common software modules, hardware components, acoustic / geographic displays and system architecture. OA relies on well defined interfaces to allow for more efficient, timely and economic integration of improved / increased capability. Common acoustic / geographic displays assist in user / operator training efficiency.

(ii) PEO IWS and PEO Ships

  - During this reporting period, the Zumwalt program's use of an OA design approach has driven successful completion of the fourth of six major software releases. This software release was 1.03 million lines of code and was developed on schedule and within cost goals in 31 months.
  - Reuse of Zumwalt OA software products will provide cost saving opportunities for future shipbuilding and ship modernization. Zumwalt and CVN fleet OA alignment is ongoing. Total Ship Computing Environment Infrastructure services were incorporated into SSDS OA baseline for 2008 fielding aboard CVN 68.

- Submarine Domain

  - A-RCI, Tactical Control, and Weapons Control Subsystems all reuse software from one TI Baseline to another. Furthermore, these programs all reuse APB-07 software developed by PEO IWS 5 to support APBs. Once the subsystems fully integrate capability improvements into their respective baselines, the decision is made as to how the improvements will be applied to the Virginia Class with nearly 100 percent software reuse. Hardware within Submarine Combat Systems is common among subsystems at the TI level, further reducing life cycle costs.
  - TI-08 capabilities are designed for commonality. Examples of commonality within the TI-08 design are AIS, On-Board Tactical Trainer, Acoustic Intercept and Ranging and Embedded National Tactical Receiver. Each of these will be installed on multiple classes of submarines.
  - TI-08 baseline hardware was established giving a 2X increase in processing power. This baseline is used commonly amongst Integrated Submarine Imaging System, Acoustics, Tactical Control, Weapons Control, and IWS 5 Developmental assets and is further applied to Virginia Class and the Royal Australian Navy's Collins Class Submarine Combat System Equipment as appropriate.

- ASW CoI

  - Working with Joint Command and Control and Net-Enabled Command Capability to reuse Universal Core, Common Core and Track components in ASW Command and Control.
  - The USW DSS, which is the Command and Control component for the ASW CoI, is modifying software to improve operability and software portability. These modifications will make use of Universal and Command and Control Common Core components as they become available. The program is conducting Limited Technical Experiments to verify that interoperability and portability goals are being met while still providing the required functionality.
  - Mid-frequency active sonar capability developed by the surface combatant community is being reused on submarine sonar.

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs

a. Systems Engineering Collaboration

- Submitted Fiscal Year 2007 OA/FORCEnet experiment artifacts to the Navy Collaborative Engineering Environment; in the process of submitting artifacts to SHARE auditors for preliminary intellectual property scans prior to submission into SHARE along with a draft copy of the report.
- Issued the Fiscal Year 2007 OA/FORCEnet Experiment Results on common data modeling efforts. The ASW data standardization working group is leveraging the results to build the

ASW extension to the Joint Track Manager / CANES data model.

- The Space Domain introduced Software Reprogrammable Payload engineering as a potential candidate for collaboration across domains.

b. Standardization of Processes

- NAVAIR began definition of a process to define the NOA CDRL for OSMPs. A Lean Six-Sigma project is being conducted to define a process that supports Industry, OPNAV, PEOs and Program Managers that will be completed later this year.

c. Quick wins / Near-term proofs of concept

- Air Domain
    - Network Centric Waveform – A small business, Twin Oaks Computing Company, Inc. developed and demonstrated a software device driver (VMNet) that enables OA data transfer over common backplanes (VME and cPCI). It also supports Remote Direct Memory Access (RDMA). The benefits of this SBIR contract include:
        - Open Standards Based Architecture (Open Fabrics),
        - High Performance Solution,
        - Clear upgrade path as hardware options increase (e.g., RDMA Capabilities),
        - Hardware neutral solution - applications port easily,
        - Supports Data Distribution Service over RDMA,
        - Utilizes backplane data transport, leaving Ethernet bandwidth available, and
        - RDMA requires no reassembly; buffer is pre-allocated with known size, zero-copy; data is placed directly in consumer's memory buffer.

- C4I Domain
    - ISNS Common Core Services will field a collection of open source software packages on USS Lincoln Strike Group platforms and the U.S. Pacific Fleet's Maritime Headquarters / Maritime Operations Center in support of the Early Adopters initiative in November 2008.
    - The Early Adopter process has succeeded in virtualizating the following systems in support of the rapid capability insertion process:
        - Navy Information / Application Product Suite;
        - Theater Medical Information Program-Maritime;
        - Composable FORCEnet;
        - AIS; and,
        - Defense Message System.

- Surface Domain

(i) Expeditionary Warfare

- PEO LMW (PMS 480) is including rigorous application of OA principles in Ship Protection System software design permitting technology introduction in edge devices

(EO/IR, gun mount, acoustic hailing device, spotlight, etc.) PMS 480 is utilizing OA Subject Matter Experts from Naval Surface Warfare Center (NSWC) Dahlgren Division to validate the "openness" of the SPS system design.

(ii) PEO IWS

- Developing Periscope Detection Radar using a SBIR firm (3Phoenix). Benefits:
  - Reduced development time to 25 months for Radar Data Processor, and
  - Significantly reduced costs (by approximately $75 million).

d. <u>Performance Improvements in Development or Fielded Systems</u>

- Air Domain
  - Initial products defining an OA for Light Aircraft Survivability (EW Systems) have been drafted. The products include a DoDAF Integrated Architecture and Interface Control Documents for the EW System components.
  - E-2C OA Computing Mission Computer Processor Functional Configuration Items (FCI). Code Conversion metrics:
    - 2,200 Software Lines of Code (SLOC) of Ada code converted to C++,
    - 1,861 Engineering Hours to convert,
    - ~$200k to convert,
    - 0.85 hrs/SLOC, 1.18 SLOC/hr, 9.5 SLOC/day,
    - 1 defect discovered during system-level integration,
    - < 0.5 errors / Thousand SLOC (KSLOC), 4.8 sigma (99.95% yield).
  - E-2C OA Computing MUX N-BUS FCI. Code Conversion metrics:
    - 3,850 SLOC of Ada code converted to C++,
    - 1,467 Engineering Hours to convert,
    - ~$160k to convert,
    - 0.38 hrs/SLOC, 2.62 SLOC/hr, 20.9 SLOC/day,
    - 10 defects discovered during system-level integration, and
    - < 2.6 errors / KSLOC, 4.3 sigma (99.74% yield).
  - Automatic Identification System Functional Configuration Items (AIS FCI) Prototype Development. Code Conversion metrics:
    - 6,195 lines (SLOC) of Model code (2,250 new / 3,945 reuse),
    - 21,330 generated lines (GSLOC) of C++ code (~3.5x conversion factor),
    - 2,100 lines (SLOC) of new or modified Advanced Control Indicator Set (ACIS) code,
    - $224K Requirements Analysis / $157K Code Development (4,350 new SLOC),
    - 0.31 hrs/new SLOC, 3.26 SLOC/hr, 26.0 SLOC/day,
    - 2 defects discovered during system-level integration, and
    - 0.46 errors / KSLOC, 4.8 sigma (99.95% yield).

  The focus on up-front systems software engineering and requirements analysis created a higher degree of confidence in the product quality, while retaining a greater degree of flexibility to adapt to future requirements. The E2C AIS Prototype Development demonstrated that a new modeled software capability can be added to the legacy Operational

Flight Program. The result was an Integrated AIS Capability with reduced risk for Fiscal Year 2009 AIS efforts.

- C4I Domain

  - CANES is expected to have greatly increased computing power over today's shipboard networks, with the number of server instances in the vicinity of a 4:1 average virtualization ratio. This means that a CANES network server would be able to host up to four virtual Common PC Operating System Environment Servers that are installed on Naval ships today. Additionally, CANES is also expecting to have a greatly reduced footprint aboard the ship with the physical number of servers decreasing by about 20 percent and the number of server racks decreasing by at least 50 percent.
  - Functional capabilities for the ADNS have been increased by reusing Navy developed software (127,976 SLOC) to increase ADNS management of routers, switches, packet shapers and servers; additionally, 25,422 SLOC of Army-developed software was reused to increase the system's ability to manage network Quality of Service.

- Surface Domain

(i) Expeditionary Warfare

  - PEO LMW is developing requirements to establish a Life Cycle Sustainment facility and is also establishing processes for TIs.

- Submarine Domain

  - As part of the APB-07 upgrade which completed lab testing, PEO SUBS and PEO IWS conducted interviews with submarine Commanding Officers and watch teams to determine what they required to better operate their ships in the contact-rich littoral waters. Those interviews resulted in three primary improvements: the Interactive Battlespace Awareness Layout Display that brings together sonar, visual, and electronic contacts on to one screen; the Rapid Periscope Observation Support that is expected to provide for quick periscope observation to maintain a fast pace of contacts; and the Common Passive Broadband with Improved Parameter Evaluation Plot that ensures that a submarine's command, fire control, and sonar see the same first data from which they base their contributions to the safe operation of their ship.
  - PEO SUBS has successfully integrated ten APBs in A-RCI and eight into the Tactical Control Subsystem and shared these same capabilities with the Collins Class and Virginia Class programs as applicable.
  - TI-06 will field the following capabilities this year.
    - Weapons Control upgrades provide improved targeting and strike capability. Provide Joint Interoperability for the strike mission.
    - Tactical Control upgrades provide the war fighter with improved contact management / decision making, and situational awareness. Benefits include a 10 to 25 percent improvement in targeting containment accuracy and a 1 to 50 percent reduction in track break. Sonar and Tactical Control displays will be

consolidated and simplified to support reduction of footprint and manning. Begin formulation in support of track manager / solution concepts.

- Sonar improvements provide the war fighter with expanded search capability through enhanced passive signal processing and track algorithm capabilities. A new active processing string based on the current Surface Ship processing will be assessed for post-APB06 applicability within the BQQ-10 sonar to increase commonality with the Surface Ship applications. Digital acoustic communication, part of the baseline processing string will be enhanced through the application of a new Tactical Decision Aid.
- Information Assurance and data distribution format changes will be implemented to enable the ability to operate with other military forces in a joint mission environment.
- Electronic Support Measures improvements provide the war fighter with an extended reach capability to understand the electromagnetic environment beyond the range of the platform's organic sensors, enhancing the platform's situational awareness. The platform will also gain the ability to detect and identify low power high threat radar that current systems are not capable of handling. The addition of the Improved Communications Acquisition and Direction Finding system provides the platform with the capability to take tactical advantage of modern communications signals.

- ASW CoI
  - The USW DSS software modifications described above will facilitate software upgrades and tech refreshes, with the intent to improve operational capability and reduce detect to engage timelines.

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles

a. Training

- DAU OA Training Module – 36 students completed module in 2nd Quarter of Fiscal Year 2008. As of April 7, 2008, 588 students have completed the module since its inception in August 2006 of which 206 students have completed the course in Fiscal Year 2008. 40 students are presently enrolled.
- C4I Domain held a two-day OA workshop (March 5-6, 2008) and trained 12 senior managers on OA.
- PEO IWS conducted a training session on OA for NSWC Panama City, attended by approximately 100 individuals. This session also covered the contents of the OA Contract Guidebook. Additionally, IWS-7B representatives individually met with a broad range of project management teams to discuss how they were incorporating OA principles into their efforts. There are a number of "lessons learned" and other feedback that will be very useful when provided to the Naval Enterprise during the revision of the *OA Contract Guidebook for Program Managers* in July 2008.

b. Communications / Outreach

- OA Website - Received 27,556 hits (https://acc.dau.mil/oa) in the 2nd Quarter of Fiscal Year 2008, bringing the total number of hits for Fiscal Year 2008 to 140,672.
- Conferences
  - Air Domain - participated in The Technical Cooperation Program in London, England, held on January 22-25, 2008. The five coalition nations that participated were: U.S., England, Australia, Canada and New Zealand. The Aviation's OA collaboration work is being conducted under the Aerospace Systems', Airborne Mission Systems Technical Panel (AMS-TP). The AMS-TP supports three key technical areas (KTA) supporting numerous working programs-projects. The OA efforts will be conducted under the KTA titled as 'Technology for obsolescence avoidance, sustainment and enhancement of Airborne Mission Systems.'
  - IWS Domain presented the Naval OA efforts to industry and Navy representatives at three conferences in January (Surface Navy Association Conference, DoN Information Management / Information Technology (IM/IT) Conference, and the Armed Forces Communications Electronics Association West Conference).
- Briefings
  - C4I Domain briefed delegates from the French Navy and the Japanese Maritime Self Defense Force on Naval OA and how PEO C4I is using Naval OA as a top-level approach for the technical and business considerations across all domain programs.
- Publications
  - Air Domain – The March 2008 *Journal of Electronic Defense* provides an article titled "PLUG 'N' PROTECT EW" which describes PEO (T)'s approach to the development of an OA for Navy and Marine Corps EW self-protection systems. The approach which features the use of standardized Interface Control Documents is to enable the mix and match of individual EW system components without the significant integration challenges typically encountered. The objectives of the EW OA are to increase competition, reduce costs, and increase effectiveness in a timely manner.

III. Summary

The Second NOA Report to Congress provides a NOA program accomplishment update since the First Report was submitted to Congress in February 2008, focusing on the period of January 1 to March 31, 2008. The Naval Enterprise continues to make significant progress in the implementation of OA. Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements at reduced costs. Continued progress is anticipated next quarter and will be reported in subsequent Quarterly Reports to Congress.

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/M08UM00129
26 Mar 08

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00128
26 Mar 08

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00127
26 Mar 08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00126
26 Mar 08

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00128
26 Mar 08

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/M08UM00129
26 Mar 08

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00127
26 Mar 08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00126
26 Mar 08

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

Report to Congress

On

MULTI DRUG RESISTANT ORGANISMS

PREPARED BY:
Bureau of Medicine and Surgery
Washington, DC 20376-2401

March 2008

I. Report Requirements

The Conference Committee on Appropriations FY2008 Department of Defense Appropriations report (110-434) directed the Service Surgeons General to report to the congressional defense committees on the antibiotic regimen being used to treat service members with these infections, what new antibiotics are available but currently not being used by the military, what research is being conducted in this area, and what is needed to ensure that the service members receive the necessary treatment to reduce these lifethreatening infections.

II. Background

Treating patients with multidrug resistant organisms is a worldwide issue and many intensive care units in the US, Canada and Europe are facing the same issues. Navy Medicine works closely with our Army and Air Force Infectious Disease colleagues in this area. Since there are currently no new drugs available for these infections, the most important strategy is to try and prevent the infections in the first place and to employ all efforts to minimize their transmission in health care settings. This effort includes the rigorous implementation of the Centers for Disease Control guidelines for prevention of the spread of organisms to other patients as well as research into the types of organisms and their environmental locations in theater.

Navy Medicine has access to the latest drugs and/or treatments for multidrug resistant organisms in the care of military beneficiaries. Current treatment regimens are individualized to the specific organism, disease site, patient responses/requirements to treatment, and appropriate patient isolation. Among a number of antibiotics, carbapenems such as imipenem, quinolone such as ciprofloxacin, cephalosporins such as ceftazadime and aminoglycocides such as amikacin are included in the standard of care in U.S. medical centers. They are utilized extensively and appropriately in the DoD. Additionally, the DoD is on the cutting edge of treatment in the use of colistin, an older drug that generally had not been used for many years but has maintained activity against some of the most resistant *Acinetobacter* organisms causing infections. Colistin is not generally available in most civilian hospitals, but is extensively used in the military treatment facilities caring for most of the war injured who return to the U.S.

III. Assessment of the ongoing and proposed DoD Infectious Disease Community Efforts to address the treatment of the life-threatening increasingly resistant infections found in service members returning from theater.

The DoD Infectious Disease community has been approaching war related infections in a TriService fashion. The Armed Forces Infectious Diseases Society has focused on war related infections, as well as methicillin resistant *Staph aureus* (MRSA), at their meetings twice annually in order to respond to these threats in a consistent manner and to determine research priorities in the DoD. Military infectious diseases protocols are addressing multiple aspects of these infections including the molecular characterization of resistant bacterial isolates to determine their source, optimizing drug levels in infected

burn patients, decreasing colonization and skin infections with MRSA and even administration of an MRSA vaccine.

During this calendar year, the Infectious Diseases Clinical Research Program (IDCRP) at the Uniformed Science University, is starting a multicenter Trauma Infectious Disease Outcomes Study (TIDOS) that will follow war injured patients from Landstuhl through the National Navy Medical Center, Walter Reed Army Medical Center, and Brooke Army Medical Center. The IDCRP will collect bacterial isolates from the war injured and following the patients' clinical course for five years after their injury. The goal is to determine which factors (antibiotics used, procedures performed, site of care, etc.) are associated with better or worse outcomes. The results of this study will provide physicians objective data to improve patient care and minimize risk of infections thereby optimizing patient outcomes (life, limb salvage, increased functionality, decreased pain, etc). This project is being funded through the National Institutes of Health (NIH) and the IDCRP and is a multiyear study.

The Navy participated in a multinational study that is ongoing and under statistical analysis at the University of Leiden Netherlands. The study is looking for clonality compared to European isolates. Data is expected late this year.

The Navy participated in study with the James Haley VA hospital in Tampa. Of the 91 patients enrolled, 45 had Acinetobacter infections, and approximately 70% were multidrug resistant Acinetobacter. The length of hospital care from time of injury to discharge from rehabilitation was, longer in patients with Acinetobacter infections.

The Navy is participating in a DoD Multicenter Cohort Study evaluating Infection-Associated Clinical Outcomes in Hospitalized Medical Evacuees following Traumatic Injury. The study is planned for five years. Enrollment has not yet begun.

IV. Conclusion

The research efforts of the DoD Infectious Disease community and the Navy to address these serious life threatening infections and the various parameters that influence resistance is a complex but critical effort that will provide physicians objective data to improve patient care and minimize risk of infections thereby optimizing patient outcomes (life, limb salvage, increased functionality, decreased pain, etc). Congressional support of these efforts is critical to our long term success in the treatment of these devastating infections. The results of our concerted efforts have the potential to benefit both our military medical system as well as the world wide health care systems.

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00135
15 Apr 08

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam M. Robinson, JR.

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable Ted Stevens,
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00136
15 Apr 08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00137
15 Apr 08

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00138
15 Apr 08

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 3 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Skelton, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 03 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Skelton, Levin and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 3 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Levin, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 03 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Skelton, Inouye and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

Next Generation Enterprise Network (NGEN)

Prepared by:

The Secretary of the Navy

The Under Secretary of Defense
(Acquisition, Technology and Logistics)

The Assistant Secretary of Defense
(Networks and Information Integration)

The Director, Operational Test and Evaluation

April 3, 2008

FOR OFFICIAL USE ONLY
(This may contain information exempt from mandatory
disclosure under the Freedom of Information Act (FOIA))

Report to Congress on the Department of the Navy
Next Generation Enterprise Network (NGEN)

Submitted by:

John J. Young, Jr.
Under Secretary of Defense
Acquisition, Technology and Logistics

3 APRIL 2008
Date

John G. Grimes
Assistant Secretary of Defense for
Networks and Information Integration
and DoD Chief Information Officer

21 March 2008
Date

Dr. Charles E. McQueary
Director, Operational Test and
Evaluation

25 MARCH 2008
Date

John S. Thackrah
ASN (RD&A), Acting

28 MARCH 2008
Date

Robert Carey
Department of the Navy
Chief Information Officer

28 Mar 2008
Date

Background

The FY 2008 National Defense Authorization Act Senate Armed Services Committee Report (110-77) directed "the Secretary of the Navy, jointly with the Assistant Secretary of Defense for Networks and Information Integration/Department of Defense Chief Information Officer; the Under Secretary of Defense for Acquisition, Technology, and Logistics; and the Director of Operational Test and Evaluation; to produce a report for Congress describing the plans and schedule, including planned funding for the NGEN initiative. The report should include a description of NGEN's compliance with the policies and architectures of the Business Transformation Agency, testing plans and procedures, and review and coordination mechanisms with all relevant oversight agencies. The report should be delivered to the congressional defense committees no later than March 1, 2008." Each of the Department of Defense elements called out in the committee report - the Secretary of the Navy; the Under Secretary of Defense for Acquisition, Technology; and Logistics the Assistant Secretary of Defense for Networks and Information Integration/Department of Defense Chief Information Officer; and the Director of Operational Test and Evaluation - are working together to ensure the NGEN effort is on a success oriented path, and have collaborated in the development of this report. Other OSD organizations will be joining the team as their specific skills and expertise are needed.

This report provides the actions taken to date, the planned actions and timeline for the NGEN solicitation and award, and a description of the review and coordination mechanisms to be followed.

Discussion

The Department of the Navy (DON) Next Generation Enterprise Network (NGEN) will be, for the Continental United States (CONUS) and Outside Continental United States (OCONUS), the Department's future vision of a comprehensive Naval Networking Environment (NNE) for the Navy and Marine Corps. Because of the near-term need to replace the Navy Marine Corps Intranet (NMCI) contract and the diversity and complexity of OCONUS support agreements, the NGEN/NNE capability will evolve over time through an incremental block upgrade approach. NGEN Block 1 will be the follow-on contract(s) to replace the NMCI contract and provide the DON with the basic communications, computing infrastructure and core services.

NGEN Block 1 will be the first step in achieving the NNE vision, which will transform the existing enterprise and legacy networks of the Department into a secure, fully interoperable and integrated world-wide environment (CONUS and OCONUS, ashore and afloat), where data and services are ubiquitously available to DON users no matter their physical location. The NNE capability will evolve over time through multiple, complementary acquisitions.

NGEN Block 1 will be the follow-on to NMCI and a key enabler for the warfighting (command and control functions) and warfighting support (business) operations of the DON ashore. NGEN Block 1 must be operational on October 1, 2010.

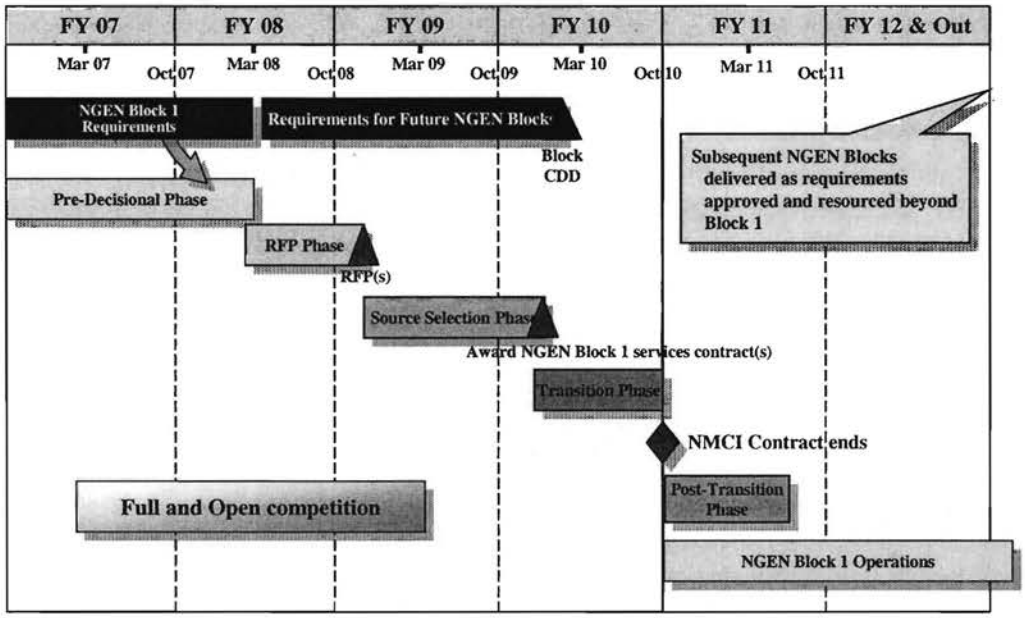
Plans and schedule

Preparation for NGEN has been a comprehensive effort, conducted with the participation of a broad spectrum of DON commands, including representation from the operational, acquisition, readiness and logistics, engineering, program management and network operator communities. Representatives from the Office of the Secretary of Defense (OSD), the Assistant Secretary of Defense (Networks and Information Integration) (ASD (NII)/DOD CIO), the Joint community, the Director, Operational Test and Evaluation (DOT&E) and the Defense Information Systems Agency (DISA) have participated in the process as well, either through the DON Deputy Chief Information Officer (CIO) Navy/DON Deputy CIO Marine Corps-led Requirements Task Force or a Program Office Integrated Product Team (IPT). DON leadership has been actively engaged throughout, primarily through the DON Information Executive Committee (IEC), the senior information management/information technology (IM/IT) forum for the DON. The Secretary of the Navy has been personally involved, receiving frequent briefings on the progress of efforts to date and providing direction as necessary.

Planning efforts for NGEN have proceeded in three primary areas. Requirements definition has been led by the DON Deputy CIO Navy/DON Deputy CIO Marine Corps Requirements Task Force. An NNE Concept of Operations effort has been led by the DON CIO. Acquisition planning has been led by the NGEN Program Office. These efforts have been guided by several high-level tenets:

- The NMCI contract expires on September 30, 2010; any follow-on to the functionality provided by NMCI must be operational by that date.
- NGEN may employ a Block Upgrade strategy to achieve the ultimate operational capability eventually envisioned by the DON's NNE strategy.
- The Office of the Secretary of Defense (OSD) oversight of the effort will be spearheaded by the Assistant Secretary of Defense (Network Integration and Information) (ASD (NII)/DOD CIO) and the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) through an NGEN Oversight Team.
- The transition from NMCI to NGEN Block 1 "do no harm"; i.e., the provision of critical services to users cannot be put at risk by the transition from NMCI.

The figure below represents the notional planning sequence of events for the NGEN acquisition.



The requirements definition effort began in May 2006 with a letter from the Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN (RD&A)) to the DON CIO, requesting that the process of defining requirements for the follow-on to NMCI be established. In October 2006 the scope of these efforts was expanded, and the Center for Naval Analysis was tasked by DON to lead an effort to identify the overarching capabilities that NGEN would need to provide in the 2010 to 2020 time frame, as well as to identify feasible material solutions to provide those capabilities. This effort subsequently became part of the DON Deputy CIO Navy/DON Deputy CIO Marine Corps-led Requirements Task Force charged with producing the comprehensive NGEN Requirements document.

A survey of a broad range of users of current DON networks, which included representation from warfighting and business commands and organizations in the DON, DoD, and Joint communities, was conducted to determine these required capabilities. A review of top-level DoD and Joint documentation related to requirements for operating in a network-centric environment followed. The Task Force assessed gaps relative to both the performance of today's networks and to the projected performance of NMCI in 2010, at the point that Block 1 of NGEN must be operational. This projected performance, combined with mandated Office of Management and Budget and DoD requirements, as well as critical improved capabilities for network reliability, adaptability, security, governance and support to the warfighter, formed the fiscally unconstrained baseline requirement for NGEN Block 1.

Concurrently, the DON CIO led an effort to define the vision, scope, strategy, and concept of operations for the DON NNE, a capability to be realized in the 2016 timeframe. As the planning for NGEN Block 1 progresses, the NNE~2016 effort will continue to analyze the needs, requirements and funding for future Block Upgrades that will bring NGEN closer to fully achieving NNE~2016 objectives.

An NGEN Program Office (PM NGEN) was established in July, 2007 under the Program Executive Officer – Enterprise Information Systems (PEO-EIS). A Program Manager (PM) and Deputy PM were assigned; staffing was initiated and work begun on the pre-decisional phase to develop an Acquisition Strategy, Acquisition Plan, Acquisition Program Baseline, and list of required technical documents. Four IPTs - Network Operations, Architecture/Engineering, Program Management and Transition - were established to analyze the requirements, develop strategies and plans and prepare the solicitation materials for NGEN Block 1. Membership for the IPTs was drawn from across a broad spectrum of DON commands, including representation from the acquisition, readiness and logistics, engineering, program management, user and network operator communities.

The process for developing the NGEN solicitation(s) from the requirements is event-driven, vice schedule-driven. At the conclusion of the requirements definition phase and approval of the requirements document by DON leadership, the PM NGEN will begin an assessment of the requirements based on environmental, resource/funding, technology, statutory and regulatory constraints. This assessment will define the expectations of the solicitation(s). It will also allow for a selection of preferred system requirements for NGEN Block 1 consideration. A System Requirements Review will then be conducted, chaired by the PM, to include headquarters, Fleet and Marine Forces, network operators, and other user participation. This review will ascertain the progress in defining system technical requirements and determine the direction and progress of the systems engineering effort.

The System Specification will then be developed. This will define the required system functions, performance parameters, all other requirements and constraints, and the sub-services to be allocated to each service function. The DON IEC will conduct a review of the System Baseline, in order to confirm that the recommended solution will meet the requirements within cost, schedule, performance and risk parameters. This is currently under assessment with other approaches, with expected completion in April 2008. A review will then be scheduled with ASN (RD&A) to present the NGEN Block 1 Service Baseline, along with the Acquisition Strategy, Acquisition Plan, Acquisition Program Baseline, and other required programmatic documents. The DON and OSD leadership will work closely together to develop the required programmatic documentation.

The Request for Proposal (RFP) Development phase will then start. DON will notify ASD (NII)/DOD CIO and the Director, Defense Procurement and Acquisition Policy (OUSD (AT&L) DPAP) of its intent to issue the NGEN solicitation. A decision

authority review, chaired by ASD (NII)/DOD CIO and Under Secretary of Defense (Acquisition, Technology and Logistics) USD (AT&L), will be scheduled to present the proposed acquisition strategy; this review is planned for September 2008. This meeting will include representation from other elements of DoD, to include the Joint Staff, PA&E, DISA and DOT&E. The desired outcome will be approval of the Acquisition Strategy document. Approval of the acquisition strategy will permit DON's issuance of the RFP(s) for NGEN Block 1. Release of the NGEN RFP(s) is planned for November 2008.

It is anticipated that a full and open competitive source selection approach will be used. The NGEN Block 1 contract(s) will be awarded on the basis of Best Value to the Government, with the evaluation factors nominally expected to include Technical Approach, Management Approach, Past Performance and Cost. The Source Selection Authority will then make a determination and the Source Selection Report will be drafted for inclusion in the Post-Award Business Clearance Memorandum (BCM). The Chief of Naval Information will then announce the contract(s) award; this announcement is planned for January, 2010. Debriefs will be provided to unsuccessful offerors that request one. Any protests will be adjudicated through established procedures.

The transition (technical and process) from the current "as is" state of NMCI services to a new "to be" state of NGEN Block 1 services will involve multiple transition efforts. These could include transition from the incumbent NMCI service provider to the NGEN Block 1 service provider(s), a "phase in" by the NGEN Block 1 service provider(s) from the incumbent NMCI service provider, or a transition from the incumbent NMCI service provider to the Government for those services that might be determined to be Government provided services. The over-riding principle for the transition strategy will be to "do no harm", meaning to effect as seamless a transition/phase-in as possible while changing from the existing service provider model to another.

The transition will conclude on October 1, 2010, with the expiration of the NMCI contract and the Initial Operational Capability of NGEN Block 1. Steady state NGEN Block 1 operations will then commence as per the new service provider model.

Planned funding

Initial funding for the transition to NGEN is programmed within NMCI funding lines. It is anticipated that funding for NGEN, similar to NMCI, will utilize a centralized approach for program management, incentives and communications circuits. The funding approach for seat and/or other information services will ultimately be dependent on strategies decided upon for NGEN Block 1 acquisition, contracting and operations.

Development of cost estimates for NGEN Block 1 is ongoing through the process outlined above and will be included in the President's Budget for Fiscal Year 2010.

Compliance with the policies and architectures of the Business Transformation Agency

NGEN Block 1 will be the DON's ashore IT infrastructure in CONUS and at select OCONUS locations. It will provide the transport infrastructure required by the business and warfighting-support systems of the Department.

As infrastructure, NGEN Block 1 will not perform any specific DoD business process; therefore, it will not be governed by the Department's Business Mission Area (BMA). Likewise, there are no investment criteria applicable to NGEN Block 1 in the Business Enterprise Architecture, which is managed by the Defense Business Transformation Agency and focuses on business functions such as financial management, personnel management and logistics. As future NGEN blocks are developed, applicability of the BMA will be considered.

The Department's IT infrastructure is governed at the Enterprise level by the DoD CIO, which has investment review and compliance criteria analogous, yet not identical, to that of the BMA. NGEN Block 1, and all subsequent blocks, will be compliant with the policies, plans, architecture, procedures and certification requirements of the Defense Information Enterprise Architecture (DIEA), and will operate as an integral part of the GIG enterprise, including use of DISN services.

Testing plans and procedures

The DON will develop and implement an integrated plan for the test, assessment and evaluation of NGEN Block 1. Planning will be closely coordinated with Office of the Secretary of Defense staff, the Director, Operational Test and Evaluation (DOT&E), and DON testing commands. The details of this coordination will be documented by a chartered NGEN Test and Evaluation IPT. The objective will be to have a strategy in place to reflect the RFP(s).

Review and coordination mechanisms with all relevant oversight agencies

The ultimate oversight structure of the NGEN program has not been decided at this point, it is anticipated that it will be overseen as either a Major Defense Acquisition Program (MDAP)/Major Automated Information System (MAIS) or as an Acquisition of Services per the USD (AT&L) Acquisition of Services policy of October 2, 2006.

Formal coordination of NGEN planning began with OSD in February, 2007 with a meeting between ASN (RD&A) and ASD (NII)/DOD CIO. It was agreed that NGEN could be viewed as two parts – information transport service, and applications. It was also agreed that the Joint Capabilities Integration and Development System (JCIDS) process should govern fielding applications, but procurement of information transport services did not need to enter the JCIDS process. This view was subsequently confirmed to Navy by Joint Staff J8 in July, 2007.

Within DON, the DON IEC (comprised of DON CIO, DON Deputy CIO Navy, DON Deputy CIO Marine Corps, ASN (RD&A), and ASN Financial Management & Comptroller (FM&C)), through its primary and advisory members, is the senior DON information management / information technology (IM/IT) forum. The DON IEC is responsible for strategic direction, programmatic oversight, validation of requirements and capabilities and appropriate resourcing of NGEN.

An NGEN Oversight Team, under the leadership of the Department of Defense Chief Information Officer (DoD CIO), has been established to ensure coordination, effective test and evaluation planning, comprehensive architectural compliance, and continued and responsive oversight of the program. The Oversight Team includes representation from the USD (AT&L), ASD (NII)/DOD CIO, the Office of Program Analysis and Evaluation (PA&E), the Joint Staff, DOT&E, DISA and DON leadership.

To ensure that NGEN delivers required capabilities in compliance with the DIEA, DON is partnering with ASD NII/DOD CIO and both organizations are leveraging each other's ongoing enterprise architecture efforts led by DOD CIO. This collaborative effort will be supplemented by DOD CIO enterprise architecture compliance reviews of requirements and specification documents to ensure NGEN capabilities are delivered in accordance with DoD CIO Architectures, Standards, and policies.

Summary

NMCI was a revolutionary approach for obtaining data and video communications and computing capabilities within DON, acquiring IT capabilities via a fixed price, multi-year, performance-based services contract. Preparation for the transition to NGEN Block 1 as the follow-on to NMCI is well underway. DON has developed and implemented a robust, comprehensive planning process for NGEN. Funding will be planned for through the Planning, Programming, Budgeting, and Execution System. The requirement for NGEN's compliance with the policies and architectures of the BTA has been determined and agreed upon. Testing plans and procedures are being formulated to reflect the solicitation(s). Finally, an effective oversight framework is being established to ensure the successful transition from NMCI to NGEN Block 1.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 3 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20510-6035

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Murtha.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 3 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 3 1 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 31 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

REPORT TO CONGRESS

ON

USE OF EXCLUSION FROM AUTHORIZED OFFICER STRENGTHS

IN THE CASE OF PERMANENT MILITARY PROFESSORS

Prepared by:
United States Navy
Deputy Chief of Naval Operations
(Manpower, Personnel, Training and Education)
Washington DC

March 2008

Report Requirement

Subsection 508 of the National Defense Authorization Act for Fiscal Year 2008 directed the following in regards to Permanent Military Professors of the Navy:

"*(d) USE OF EXCLUSIONS FROM AUTHORIZED OFFICER STRENGTHS - Not later than March 31, 2008, the Secretary of the Navy shall submit to the congressional defense committees a report describing the plans of the Secretary for utilization of authorized exemptions under section 523(b)(8) of title 10, United States Code, and a discussion of the Navy's requirement, if any, and projections for use of additional exemptions by grade.*"

Authorized Exemptions

Under section 523(b)(8) of title 10, United States Code, Permanent Professors of the United States Naval Academy, as well as career military professors at the United States Military Academy and the United States Air Force Academy, shall be excluded in determining authorized strengths in the grades of lieutenant commander, commander or captain (or service equivalent), at a level not to exceed 50 from any such academy. The terms Career Military Professor, Permanent Military Professor (PMP), and Permanent Professor are used interchangeably.

Navy's Requirements

The Navy's Permanent Military Professor (PMP) program was created to establish a cadre of career naval officers with both doctoral degrees and extensive operational experience to instruct at the United States Naval Academy, the Naval Postgraduate School and the Naval War College. The Navy's PMP requirements are at the grades of commander and captain as follows:

a. The United States Naval Academy (USNA) has a requirement for 50 PMPs. The Navy is in the process of building its cadre of USNA PMPs to meet this requirement.

b. The Naval Postgraduate School ~~(NPS)~~ has a requirement for four PMPs.

c. The Naval War College (NWC) has a requirement for two PMPs, with the flexibility to meet instructor requirements with a third PMP if necessary.

d. The Navy has a requirement for an average of 24 to 29 PMP selectees to be enrolled in doctoral study at any given time to support maintaining a full complement of 50 PMPs instructing at the USNA, four instructing at the NPS and two instructing at the NWC. The career changing nature of the PMP program requires the right role models who are attracted and motivated to serve the remainder of their careers in academia. It is essential that the Navy invest in doctoral education of these officers to meet its instructional requirements. The Navy accomplishes this through enrollment of PMP selectees at the NPS or civilian educational institutions in programs ranging from three to four years depending upon academic discipline. For example, the Mechanical Engineering PhD in Propulsion Systems is earned through NPS in three years whereas the Naval Architecture PhD is earned through Massachusetts Institute of Technology in four years. A viable PMP career field depends on having the educational program in place to prepare fleet officers to obtain the credentials necessary to assume PMP responsibilities.

Utilization of Exemptions

The Navy applies exemptions to USNA PMPs only, per section 523(b)(8) of title 10, United States Code. Currently, the number of exemptions is 39 with deliberate plans to reach 50 by summer 2009. However, this exemption authority does not account for all PMP requirements, which in addition to the USNA include those instructing at the NPS and the NWC, as well as those enrolled in PhD programs required to provide PMPs the necessary academic credentials. Current and projected total Navy PMP requirements and exemptions by grade are provided in Table 1.

Table 1. Total Navy PMP requirements and exemptions by grade. Current exemptions highlighted in yellow. Projections for use of additional exemptions highlighted in blue. Steady state of both existing and proposed grade exemption is expected in FY11.

Institution	March 2008 CDR	March 2008 CAPT	Total PMPs March 2008	August 2008 CDR	August 2008 CAPT	Total PMPs August 2008	August 2009 CDR	August 2009 CAPT	Total PMPs August 2009
USNA	27	12	39	37	13	45	36	14	50
NPS	4	0	4	4	0	4	4	0	4
NWC	2	0	2	2	0	2	2	0	2
Enrollment in doctoral study*	7	1	8	19	0	19	21	0	21
Totals	40	13	53	62	13	70	63	14	77

* Note: Reflects an upper limit that is not to be exceeded.

Institution	August 2010 CDR	August 2010 CAPT	Total PMPs August 2010	August 2011 CDR	August 2011 CAPT	Total PMPs August 2011	August 2012 CDR	August 2012 CAPT	Total PMPs August 2012
USNA	35	15	50	34	16	50	34	16	50
NPS	4	0	4	4	0	4	4	0	4
NWC	2	0	2	2	0	2	2	0	2
Enrollment in doctoral study*	26	0	26	29	0	29	29	0	29
Totals	67	15	82	69	16	85	69	16	85

* Note: Reflects an upper limit that is not to be exceeded.

Conclusion

The Navy would welcome authority that would allow exemption for PMP requirements at the United States Naval Academy, the Naval Postgraduate School, and the Naval War College, and accommodate enrollment in doctoral education to obtain the necessary academic credentials to assume PMP responsibilities.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 31 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure
As stated.

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 31 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Levin.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

APR 08 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Inouye.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

APR 08 2008

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Murtha.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure
As stated.

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

REPORT TO CONGRESS

UTILIZATION OF TUITION ASSISTANCE
BY
MEMBERS OF THE NAVY

1. POLICY

Provide instructions/regulations/policy number and web link if available for the following policies in effect in FY07.

OPNAVINST 1560.9, Navy Voluntary Education Programs (Navy Campus) of 4 April 1988, was under extensive revision in FY07. Pending release of the updated instruction, NAVADMINs 166/06 and 161/07 provided updated guidance. OPNAVINST 1560.9A, Voluntary Education (VOLED) for Navy Sailors, was released on 4 March 2008 and cancelled OPNAVINST 1560.9.

SECNAVINST 1560.4A, Department of the Navy Voluntary Education (VOLED) Program, of 1 Dec 2005

MILPERSMAN 1160-040 of 4 Jan 2008

OPNAV and SECNAV instructions are available on-line at: http://doni.daps.dla.mil. NAVADMINs are available on-line at: http://www.npc.navy.mil within the reference library.

In addition to Tuition Assistance (TA), Navy provides college tuition to Sailors forward deployed on ships or in remote areas through the Navy College Program Afloat College Education (NCPACE). Policy for NCPACE and TA are the same except where noted.

a. List of policies regarding utilization of tuition assistance and NCPACE.

(1) TA and NCPACE are components of the Navy's off-duty, voluntary education program. They provide tuition assistance to regular component active duty members, reservists on continuous active duty, and reservists ordered to active duty for 120 days or more.

(2) TA and NCPACE provide funds that assist in payment of tuition costs for high school completion; and associates, bachelors, masters or doctoral degrees.

(3) Regular and Reserve Commissioned Officers, including Limited Duty and Chief Warrant Officers, must agree to remain on active duty for at least two years after completion of, or withdrawal from, the last course funded by TA or through NCPACE.

(4) The policy in 2007 requiring enlisted Sailors with less than 19 years to have one year remaining on active duty to use TA or NCPACE was revised by NAVADMIN 042/08.

(5) Enlisted Sailors, regardless of time in service may request a one-time conditional extension per enlistment contract for the purpose of continuing education.

(6) TA and NCPACE may only be paid to educational institutions accredited by accrediting organizations recognized by the Department of Education.

(7) In the case of enlisted Sailors, courses must be completed while participants are on active duty.

b. List of policies regarding the limits of tuition assistance and NCPACE.

(1) TA and NCPACE will be provided for courses listed in a Sailor's approved education plan.

(2) Education plans shall be progressive. Expected progression is associates, bachelors, masters, doctoral. TA and NCPACE will not be used for education plans which lead to an additional degree at the same or lower level. Lower division or prerequisite courses may be funded if the courses are part of the next higher level education plan.

(3) Sailors may take up to five courses prior to developing their education plan. Subsequent courses must be in an approved education plan in order to receive funding through TA or NCPACE.

(4) TA and NCPACE may not be used to fund Continuing Education Units (CEUs).

(5) Advancement eligible enlisted Sailors must have taken and passed the most recent advancement exam to be authorized TA or NCPACE.

(6) Sailors must have passed the most recent Physical Fitness Assessment to be authorized TA or NCPACE.

(7) Sailors must be recommended for promotion or advancement on their most recent evaluation or fitness report to be authorized TA or NCPACE.

(8) Sailors will typically not receive TA while in a training status.

(9) Sailors found guilty of court martial, sentenced to punitive discharge or confinement, on appellate leave or pending an administrative separation will not receive TA or NCPACE.

(10) Sailors must maintain a "C" average (2.0 on a 4.0 scale) or better to continue to receive TA or NCPACE.

c. List of policies regarding funding of tuition assistance and NCPACE.

(1) TA covers 100% of tuition up to the maximum limit directed by the Office of Secretary of Defense.

(2) Tuition will not exceed $250.00 per semester hour or $166.67 per quarter hour.

(3) Navy uses a 16 semester hour or 24 quarter annual cap. Sailors may be granted waivers to this cap based on Commanding Officer endorsement and Sailors proven ability to balance professional, personal and academic requirements.

(4) Navy funds only those course fees required to enroll in and complete a specific course. Navy does not fund non-course fees such as application fees, health fees, parking fees, etc.

(5) Navy does not fund cost of books and materials.

(6) NCPACE is a contracted program and provides 100% tuition for eligible Sailors. There are no semester hour caps for NCPACE.

2. FUNDING

a. Number of Active members funded.

(1) TA provided funding for 61,694 Sailors to take 170,900 courses.

(2) NCPACE provided funding for 10,476 Sailors to take 22,486 courses.

b. Number of Reserve members funded.

(1) Navy policy funds active duty reservists on continuous active duty, and reservists ordered to active duty 120 days or more, both ashore and at sea. Courses must be completed while the Sailor is on active duty. Statistics for Reserves are not tracked separately and are included in the Active member's data.

c. Number of Reserve members unfunded.

(1) Based on current policy, Reserves who meet the requirements listed above will be given assistance through TA or NCPACE.

3. FUNDING POLICY

a. FY07 Navy obligated $99,746,880 for TA.

b. FY07 Navy obligated $12,784,329 for NCPACE.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 31 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure
As stated.

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 31 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Levin.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

APR 0 8 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Inouye.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

UTILIZATION OF TUITION ASSISTANCE
BY
MEMBERS OF THE NAVY

1. POLICY

Provide instructions/regulations/policy number and web link if available for the following policies in effect in FY07.

OPNAVINST 1560.9, Navy Voluntary Education Programs (Navy Campus) of 4 April 1988, was under extensive revision in FY07. Pending release of the updated instruction, NAVADMINs 166/06 and 161/07 provided updated guidance. OPNAVINST 1560.9A, Voluntary Education (VOLED) for Navy Sailors, was released on 4 March 2008 and cancelled OPNAVINST 1560.9.

SECNAVINST 1560.4A, Department of the Navy Voluntary Education (VOLED) Program, of 1 Dec 2005

MILPERSMAN 1160-040 of 4 Jan 2008

OPNAV and SECNAV instructions are available on-line at: http://doni.daps.dla.mil. NAVADMINs are available on-line at: http://www.npc.navy.mil within the reference library.

In addition to Tuition Assistance (TA), Navy provides college tuition to Sailors forward deployed on ships or in remote areas through the Navy College Program Afloat College Education (NCPACE). Policy for NCPACE and TA are the same except where noted.

a. List of policies regarding utilization of tuition assistance and NCPACE.

(1) TA and NCPACE are components of the Navy's off-duty, voluntary education program. They provide tuition assistance to regular component active duty members, reservists on continuous active duty, and reservists ordered to active duty for 120 days or more.

(2) TA and NCPACE provide funds that assist in payment of tuition costs for high school completion; and associates, bachelors, masters or doctoral degrees.

(3) Regular and Reserve Commissioned Officers, including Limited Duty and Chief Warrant Officers, must agree to remain on active duty for at least two years after completion of, or withdrawal from, the last course funded by TA or through NCPACE.

(4) The policy in 2007 requiring enlisted Sailors with less than 19 years to have one year remaining on active duty to use TA or NCPACE was revised by NAVADMIN 042/08.

(5) Enlisted Sailors, regardless of time in service may request a one-time conditional extension per enlistment contract for the purpose of continuing education.

(6) TA and NCPACE may only be paid to educational institutions accredited by accrediting organizations recognized by the Department of Education.

(7) In the case of enlisted Sailors, courses must be completed while participants are on active duty.

b. List of policies regarding the limits of tuition assistance and NCPACE.

(1) TA and NCPACE will be provided for courses listed in a Sailor's approved education plan.

(2) Education plans shall be progressive. Expected progression is associates, bachelors, masters, doctoral. TA and NCPACE will not be used for education plans which lead to an additional degree at the same or lower level. Lower division or prerequisite courses may be funded if the courses are part of the next higher level education plan.

(3) Sailors may take up to five courses prior to developing their education plan. Subsequent courses must be in an approved education plan in order to receive funding through TA or NCPACE.

(4) TA and NCPACE may not be used to fund Continuing Education Units (CEUs).

(5) Advancement eligible enlisted Sailors must have taken and passed the most recent advancement exam to be authorized TA or NCPACE.

(6) Sailors must have passed the most recent Physical Fitness Assessment to be authorized TA or NCPACE.

(7) Sailors must be recommended for promotion or advancement on their most recent evaluation or fitness report to be authorized TA or NCPACE.

(8) Sailors will typically not receive TA while in a training status.

(9) Sailors found guilty of court martial, sentenced to punitive discharge or confinement, on appellate leave or pending an administrative separation will not receive TA or NCPACE.

(10) Sailors must maintain a "C" average (2.0 on a 4.0 scale) or better to continue to receive TA or NCPACE.

c. List of policies regarding funding of tuition assistance and NCPACE.

(1) TA covers 100% of tuition up to the maximum limit directed by the Office of Secretary of Defense.

(2) Tuition will not exceed $250.00 per semester hour or $166.67 per quarter hour.

(3) Navy uses a 16 semester hour or 24 quarter annual cap. Sailors may be granted waivers to this cap based on Commanding Officer endorsement and Sailors proven ability to balance professional, personal and academic requirements.

(4) Navy funds only those course fees required to enroll in and complete a specific course. Navy does not fund non-course fees such as application fees, health fees, parking fees, etc.

(5) Navy does not fund cost of books and materials.

(6) NCPACE is a contracted program and provides 100% tuition for eligible Sailors. There are no semester hour caps for NCPACE.

2. FUNDING

a. Number of Active members funded.

(1) TA provided funding for 61,694 Sailors to take 170,900 courses.

(2) NCPACE provided funding for 10,476 Sailors to take 22,486 courses.

b. Number of Reserve members funded.

(1) Navy policy funds active duty reservists on continuous active duty, and reservists ordered to active duty 120 days or more, both ashore and at sea. Courses must be completed while the Sailor is on active duty. Statistics for Reserves are not tracked separately and are included in the Active member's data.

c. Number of Reserve members unfunded.

(1) Based on current policy, Reserves who meet the requirements listed above will be given assistance through TA or NCPACE.

3. FUNDING POLICY

a. FY07 Navy obligated $99,746,880 for TA.

b. FY07 Navy obligated $12,784,329 for NCPACE.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

APR 0 8 2008

The Honorable Daniel Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Murtha.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure
As stated.

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

REPORT TO CONGRESS

UTILIZATION OF TUITION ASSISTANCE
BY
MEMBERS OF THE NAVY

1. POLICY

Provide instructions/regulations/policy number and web link if available for the following policies in effect in FY07.

OPNAVINST 1560.9, Navy Voluntary Education Programs (Navy Campus) of 4 April 1988, was under extensive revision in FY07. Pending release of the updated instruction, NAVADMINs 166/06 and 161/07 provided updated guidance. OPNAVINST 1560.9A, Voluntary Education (VOLED) for Navy Sailors, was released on 4 March 2008 and cancelled OPNAVINST 1560.9.

SECNAVINST 1560.4A, Department of the Navy Voluntary Education (VOLED) Program, of 1 Dec 2005

MILPERSMAN 1160-040 of 4 Jan 2008

OPNAV and SECNAV instructions are available on-line at: http://doni.daps.dla.mil. NAVADMINs are available on-line at: http://www.npc.navy.mil within the reference library.

In addition to Tuition Assistance (TA), Navy provides college tuition to Sailors forward deployed on ships or in remote areas through the Navy College Program Afloat College Education (NCPACE). Policy for NCPACE and TA are the same except where noted.

a. List of policies regarding utilization of tuition assistance and NCPACE.

(1) TA and NCPACE are components of the Navy's off-duty, voluntary education program. They provide tuition assistance to regular component active duty members, reservists on continuous active duty, and reservists ordered to active duty for 120 days or more.

(2) TA and NCPACE provide funds that assist in payment of tuition costs for high school completion; and associates, bachelors, masters or doctoral degrees.

(3) Regular and Reserve Commissioned Officers, including Limited Duty and Chief Warrant Officers, must agree to remain on active duty for at least two years after completion of, or withdrawal from, the last course funded by TA or through NCPACE.

(4) The policy in 2007 requiring enlisted Sailors with less than 19 years to have one year remaining on active duty to use TA or NCPACE was revised by NAVADMIN 042/08.

(5) Enlisted Sailors, regardless of time in service may request a one-time conditional extension per enlistment contract for the purpose of continuing education.

(6) TA and NCPACE may only be paid to educational institutions accredited by accrediting organizations recognized by the Department of Education.

(7) In the case of enlisted Sailors, courses must be completed while participants are on active duty.

b. List of policies regarding the limits of tuition assistance and NCPACE.

(1) TA and NCPACE will be provided for courses listed in a Sailor's approved education plan.

(2) Education plans shall be progressive. Expected progression is associates, bachelors, masters, doctoral. TA and NCPACE will not be used for education plans which lead to an additional degree at the same or lower level. Lower division or prerequisite courses may be funded if the courses are part of the next higher level education plan.

(3) Sailors may take up to five courses prior to developing their education plan. Subsequent courses must be in an approved education plan in order to receive funding through TA or NCPACE.

(4) TA and NCPACE may not be used to fund Continuing Education Units (CEUs).

(5) Advancement eligible enlisted Sailors must have taken and passed the most recent advancement exam to be authorized TA or NCPACE.

(6) Sailors must have passed the most recent Physical Fitness Assessment to be authorized TA or NCPACE.

(7) Sailors must be recommended for promotion or advancement on their most recent evaluation or fitness report to be authorized TA or NCPACE.

(8) Sailors will typically not receive TA while in a training status.

(9) Sailors found guilty of court martial, sentenced to punitive discharge or confinement, on appellate leave or pending an administrative separation will not receive TA or NCPACE.

(10) Sailors must maintain a "C" average (2.0 on a 4.0 scale) or better to continue to receive TA or NCPACE.

c. List of policies regarding funding of tuition assistance and NCPACE.

(1) TA covers 100% of tuition up to the maximum limit directed by the Office of Secretary of Defense.

(2) Tuition will not exceed $250.00 per semester hour or $166.67 per quarter hour.

(3) Navy uses a 16 semester hour or 24 quarter annual cap. Sailors may be granted waivers to this cap based on Commanding Officer endorsement and Sailors proven ability to balance professional, personal and academic requirements.

(4) Navy funds only those course fees required to enroll in and complete a specific course. Navy does not fund non-course fees such as application fees, health fees, parking fees, etc.

(5) Navy does not fund cost of books and materials.

(6) NCPACE is a contracted program and provides 100% tuition for eligible Sailors. There are no semester hour caps for NCPACE.

2. FUNDING

a. Number of Active members funded.

(1) TA provided funding for 61,694 Sailors to take 170,900 courses.

(2) NCPACE provided funding for 10,476 Sailors to take 22,486 courses.

b. Number of Reserve members funded.

(1) Navy policy funds active duty reservists on continuous active duty, and reservists ordered to active duty 120 days or more, both ashore and at sea. Courses must be completed while the Sailor is on active duty. Statistics for Reserves are not tracked separately and are included in the Active member's data.

c. Number of Reserve members unfunded.

(1) Based on current policy, Reserves who meet the requirements listed above will be given assistance through TA or NCPACE.

3. FUNDING POLICY

a. FY07 Navy obligated $99,746,880 for TA.

b. FY07 Navy obligated $12,784,329 for NCPACE.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Inouye, Skelton and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Levin, Skelton and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Skelton, Inouye and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Levin, Inouye and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

REPORT TO CONGRESS

Next Generation Enterprise Network (NGEN)

Prepared by:

Office of the Assistant Secretary of the Navy
(Research, Development and Acquisition)
The Deputy Assistant Secretary of the Navy for C4I and Space Programs
Washington, DC 20350

September 30, 2008

Introduction

On April 3, 2008, the Department of Defense (DoD), pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided to congressional defense committees a report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet (NMCI) contract. The following is an update to the report.

Discussion

Since the initial report on NGEN, significant progress has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN requirements document was signed by the Chief of Naval Operations and the Commandant of the Marine Corps in May 2008. The NGEN program continues to have a high-level of executive engagement and oversight.

The Office of the Assistant Secretary of Defense for Networks and Information Integration (ASD NII)/ DoD Chief Information Officer (DoD CIO), and the Department of the Navy CIO (DON CIO) jointly chair a monthly review of program progress. The Secretary of the Navy (SECNAV) has recently approved the formation of a NGEN System Program Office (SPO) as the single DON organization that will ensure an enterprise-wide approach for development, delivery, operations, and support of NGEN. The Department of Navy, with the guidance of the Office of the Secretary of Defense, Program Assessment and Evaluation (OSD PA&E) is also conducting an Analysis of Alternatives that will guide the Department with its final NGEN Acquisition Strategy.

Industry Day

We recently held our second Industry Day, on September 8, 2008, where we presented the high-level NGEN functional concept. The Program Executive Officer for Enterprise Information Systems (PEO-EIS) hosted the Industry Day, which included presentations by the DON CIO; Deputy CNO for Communications Networks; USMC Deputy Director, Headquarters Marine Corps, Command, Control, Communications and Computers; and the Deputy Naval Network Warfare Command. More than 390 participants from 217 different companies attended the Industry Day.

Information presented to industry representatives included the Department's future vision for a fully interoperable Naval Networking Environment (NNE) and the NGEN role within the NNE; the current NMCI operational environment; an overview of NGEN requirements; and the notional NGEN service segmentation approach. We also provided information as to which services in the notional approach would be considered "government retained" including: network operations and security, program management, contract management, technical authority, emerging technology insertion, and in-service engineering.

PEO EIS has requested industry comment on the notional NGEN segmentation approach, through a Request for Information posted on the Federal Business Opportunity website on September 10, 2008 (www.fedbizopps.gov). Industry was asked to comment on advantages

For Official Use Only – Acquisition Sensitive (See FAR 3.104)

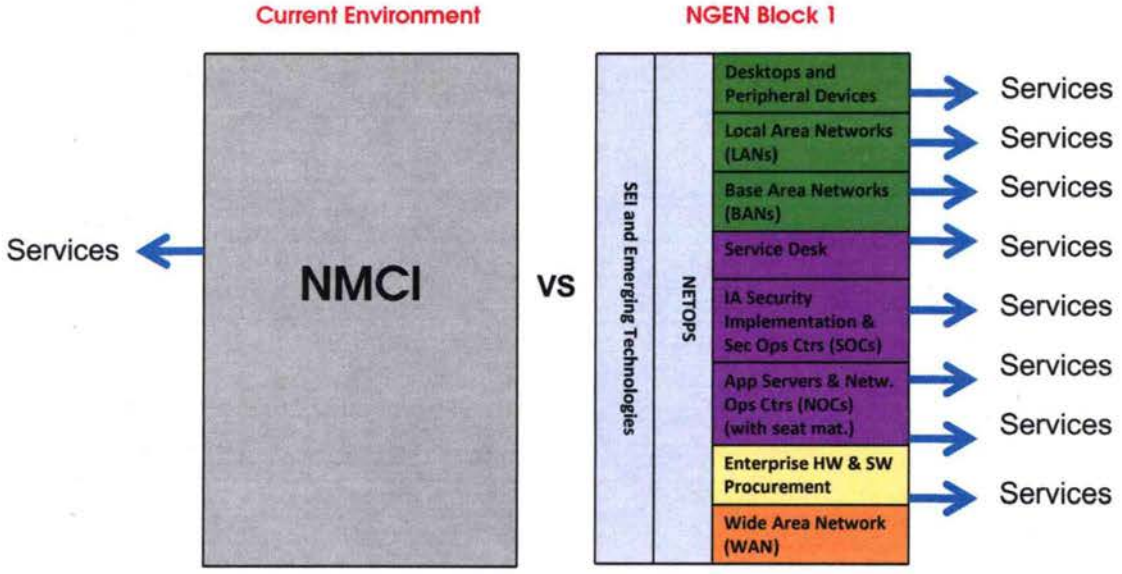
and/or disadvantages of this approach. Additionally, industry was asked to provide alternative approaches to segmentation, as well as alternative strategies for transitioning to NGEN.

NGEN Governance

On September 4, 2008, SECNAV approved the stand-up of an NGEN SPO to ensure an enterprise-wide approach for seamless oversight of the DON NGEN implementation. A charter for the NGEN SPO, which describes the mission, authority, responsibilities, and organizational relationships the NGEN SPO will have within the DON, is in the signature process and will be jointly signed by the Chief of Naval Operations, the Commandant of the Marine Corps, and the SECNAV. In addition to the seamless oversight of NGEN Programmatic efforts, the NGEN SPO shall synchronize NGEN implementation with pre-existing network operations to ensure continuity of service to all users throughout the transition. The NGEN SPO will also have the responsibility for DON transition from the NMCI environment to the NGEN environment, including responsibility for implementing appropriate risk mitigation strategies that will guarantee operational viability of affected Service networks. Finally, the NGEN SPO shall consist of a Director; Deputy Director; Executive Director; and three Divisions: Operations; Acquisition; and Programming, Planning, and Policy.

Acquisition Strategy

NGEN services will be acquired through full and open competitions to the maximum extent practicable. In order to achieve the primary requirements for government operational and design control of NGEN as well as ensure a reasonable level of competition across the entire spectrum of information technology service providers, the contemplated Acquisition Strategy is to separate NGEN services into industry recognizable segments. The figure below (presented at Industry Day) depicts a possible approach to segmentation of NGEN capabilities, as compared to the existing NMCI services.



1

For Official Use Only – Acquisition Sensitive (See FAR 3.104)

Using guidance from OSD PA&E, the DON CIO is overseeing the execution of an Analysis of Alternatives focused on analyzing the cost, risk, and performance of three different approaches:

- *Status quo*: seats and services acquired through a services contract similar to the current NMCI contract
  - Network owned and operated by single vendor ,
  - Cost estimates based on NMCI contract

- Enhanced *status quo*: current NMCI contract updated and upgraded to address contract shortfalls identified in NGEN Functional Area Analysis (FAA), Functional Needs Analysis (FNA), Functional Solutions Analysis (FSA), and other lessons learned

- Replace status quo: seats and services acquired through multiple contracts
  - DISA to be considered as a potential vendor for services they can provide

The analysis is considering variations on the segmented approach as a means of understanding the best mix or grouping of segments to achieve competition and cost objectives while ensuring operational and design control requirements are achieved. The analysis is expected to be completed by December 2008 with the OSD PA&E review completed no later than early Spring 2009.

Government Workforce

The Department will necessarily require a modest increase in its IM/IT workforce in order to achieve its primary objectives with NGEN: Operational and Design Control. The Department is currently conducting detailed workforce analyses, based on the draft acquisition approach as well as the Concept of Operations and overall Naval Workforce Strategy to determine the best mix of military, civilian and contractor personnel that will achieve the necessary government control of NGEN.

The Department expects to continue to require a significant level of support from industry to execute critical functions across NGEN. This large group of industry personnel will be acquired via the contracts that will be awarded per the Acquisition Strategy and will be a major component of all segments of NGEN.

Transition Strategy

The Department will transition approximately 700,000 users assigned to nearly 370,000 seats from NMCI to NGEN. It is anticipated that the US Marine Corps will transition into NGEN prior to the US Navy. An aggressive transition for the US Marine Corps is required because of its high operational tempo and its large body of operators.

Depending on the final Acquisition Strategy for NGEN, the specific transition approach may vary. As discussed above, the Department is continuing to mature this strategy with an expectation that it will be completed and approved in the Spring 2009.

For Official Use Only – Acquisition Sensitive (See FAR 3.104)

Critical to the success and timing of the transition are two important factors:

- Risk mitigation activities conducted pre-contract award; and,
- Transition support from the NMCI incumbent as needed by the Military Services to ensure no loss of services during the transition period.

Risk mitigation activities include development of industry standard Information Technology Services Management tools and processes for managing the seams between the NGEN segment vendors and the DON. Additionally, the Department will develop specific Network Operations processes and configuration management policies in order to achieve the necessary operational and design control. All of the current risk mitigation activities are required to begin in 2009 in order to support full transition start in 2010.

Schedule and the Critical Path

Given the complexity and magnitude of the development, contracting and transition activities as well as the inter-dependencies of each activity, the Department is developing a comprehensive integrated master schedule. The integrated master schedule development is a natural progression from previous top-level plans as detailed tasks are identified and understood. The schedule will include all activities by the Department as well as the necessary actions by external stakeholders that will necessarily influence and determine the pace of progress. A critical path of activities that must be managed closely to ensure timely success is emerging as the integrated master schedule is developed.

Key critical path items include:

1) Analysis of Alternatives – will guide the Department in its final Acquisition Strategy - required before the Department can release request for proposals to industry.

2) Independent Cost Estimates – will guide the Department in source selection and negotiations for NGEN service providers - required before the Department can complete the source selections and award NGEN segment contracts.

3) Transition Contract Negotiations – will be needed to ensure the relationships between the NMCI incumbent, the DON, and the new NGEN providers are well established, before the Department can complete the NGEN segment source selections and contract awards.

4) Risk Mitigation Activities – are necessary to ensure a smooth transition, minimizing the risk of service continuity loss and enabling government control of operations and design of NGEN; these activities also include early transition activities to reduce the transition risk from NMCI to NGEN.

5) Development of the NGEN Government Workforce – A committed effort will need to begin in Fiscal Year 2009 to hire and/or transfer and train government employees to conduct NGEN Network Operations (NETOPS) and NGEN System Engineering & Integration in concert with contractor transition operations and outsourced NGEN Segmented Services.

Cost and Funding Considerations

While the Department believes it has sufficiently programmed for NGEN costs, to include all transition and risk mitigation activities from 2010 and beyond, the budget request for

For Official Use Only – Acquisition Sensitive (See FAR 3.104)

Fiscal Year 2009 was developed before definition of NGEN activities in 2009. To ensure the critical path is maintained to achieve competition and operational/design control objectives for NGEN, the Department embarked upon a learning process during 2008 as it developed the draft Acquisition Strategy and understood the complexity of transition for such a large enterprise network.

The aggressive US Marine Corps transition may provide opportunities for early investments by the Department of the Navy to reduce operational and security risks.

The Department is developing, and expects to request, a reprogramming of funds within the Department's budget sufficient to execute the necessary risk mitigation activities in Fiscal Year 2009. This reprogramming will likely exceed thresholds requiring Congressional approval, and therefore, will be developed with the appropriate oversight of Congressional Defense Committees.

Summary

NGEN is a significant undertaking for the Department of the Navy. It will transform how the Department operates and manages its networks as a critical element of the Department's future NNE. Transition from NMCI to NGEN is a cornerstone of enabling the Warfighter as well as supporting business operations across the Naval Enterprise.

For Official Use Only – Acquisition Sensitive (See FAR 3.104)

(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Inouye, Skelton and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Levin, Skelton and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Skelton, Inouye and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

On April 3, 2008, the Department of Defense, pursuant to the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, provided the congressional defense committees a report on the Department of the Navy's Next Generation Enterprise Network (NGEN) initiative, the replacement for the Navy/Marine Corps Intranet contract. The letter indicated that an update would be provided by the end of Fiscal Year 2008.

The enclosed report describes the progress that has been made in the development of specifications as well as governance and the basic Acquisition Strategy for the program. The NGEN program continues to have a high level of executive engagement and oversight. The program specifications are nearing completion and the Department will begin the development shortly of contract statement of work and request for proposals.

A similar letter has been sent to Chairmen Levin, Inouye and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean Stackley

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

AUG 07 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The FY 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy (SECNAV) to submit a report to the congressional defense committees, commencing with the FY 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA). In addition, the FY 2009 SASC Report 110-335 directed that no greater than 50 percent of the amounts authorized for FY 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the SECNAV of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the third quarterly report. This report reviews program accomplishments related to Naval OA from April 1, 2008 through June 30, 2008; and describes the Navy's upcoming activities for implementing OA. The next report will focus on surface combat systems and will address how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. This will also highlight where software will be partitioned and componentized in order to leverage system design modularity. This approach will enable the sought opportunities for innovation and competition which are fundamental to the value of OA. The next report will outline this plan in greater detail.

If I can be of further assistance, please let me know. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

AUG 07 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy (SECNAV) to submit a report to the congressional defense committees, commencing with the FY 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA). In addition, the FY 2009 SASC Report 110-335 directed that no greater than 50 percent of the amounts authorized for FY 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the SECNAV of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the third quarterly report. This report reviews program accomplishments related to Naval OA from April 1, 2008 through June 30, 2008; and describes the Navy's upcoming activities for implementing OA. The next report will focus on surface combat systems and will address how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. This will also highlight where software will be partitioned and componentized in order to leverage system design modularity. This approach will enable the sought opportunities for innovation and competition which are fundamental to the value of OA. The next report will outline this plan in greater detail.

If I can be of further assistance, please let me know. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

AUG 07 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The FY 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the
The FY 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the
Secretary of the Navy (SECNAV) to submit a report to the congressional defense committees, commencing with the FY 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA). In addition, the FY 2009 SASC Report 110-335 directed that no greater than 50 percent of the amounts authorized for FY 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the SECNAV of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the third quarterly report. This report reviews program accomplishments related to Naval OA from April 1, 2008 through June 30, 2008; and describes the Navy's upcoming activities for implementing OA. The next report will focus on surface combat systems and will address how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. This will also highlight where software will be partitioned and componentized in order to leverage system design modularity. This approach will enable the sought opportunities for innovation and competition which are fundamental to the value of OA. The next report will outline this plan in greater detail.

If I can be of further assistance, please let me know. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

AUG 07 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The FY 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy (SECNAV) to submit a report to the congressional defense committees, commencing with the FY 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA). In addition, the FY 2009 SASC Report 110-335 directed that no greater than 50 percent of the amounts authorized for FY 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the SECNAV of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the third quarterly report. This report reviews program accomplishments related to Naval OA from April 1, 2008 through June 30, 2008; and describes the Navy's upcoming activities for implementing OA. The next report will focus on surface combat systems and will address how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. This will also highlight where software will be partitioned and componentized in order to leverage system design modularity. This approach will enable the sought opportunities for innovation and competition which are fundamental to the value of OA. The next report will outline this plan in greater detail.

If I can be of further assistance, please let me know. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THIRD QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems
Washington, DC 20376

August 2008

Table of Contents

I. Introduction 3
II. NOA Accomplishments: April 1, 2008 through June 30, 2008 4
III. OA Program Plan for the Surface Domain and Aegis Combat System 12
IV. Summary 20

I. Introduction

A. Reporting Requirement

As directed in the report of the Senate Armed Services Committee Report (SASC) on the National Defense Authorization Act for Fiscal Year 2008 (Report No. 110-77) the Navy submits this Third Quarterly Report to Congress on Open Architecture. The scope of this report includes noteworthy Naval Open Architecture (NOA) accomplishments of the Open Architecture Enterprise Team (OAET) and individual Domains (Air; Command, Control, Communications and Intelligence (C4I); Space; Submarines (SUBS); Surface; and Marine Corps) and the Anti-submarine Warfare (ASW) Community of Interest (CoI) from April 2008 through June 2008. Significant future events planned through December 2008 are also discussed.

SASC Report 110-77 stated that the "report shall include: (i) an integrated schedule outlining OA development and the related surface ship fielding plan; (ii) an assessment of OA development, test, procurement, installation, and operating and support costs; (iii) the Navy's acquisition strategy for leveraging competition in software development; and (iv) the Navy's performance to the OA plan. Additionally, the report shall: (i) identify software that is intended to be available for re-use by third parties in support of the OA implementation plan; (ii) describe the Navy's progress in making that software and related documentation available through the Navy's Software, Hardware Asset Re-use Enterprise (SHARE) Library; (iii) describe how the Navy is assuring quality and appropriate data rights for software and related documentation deposited in the SHARE Library; (iv) describe how the Navy is driving re-use of SHARE Library software; (v) outline contracts which have re-used third party software from the SHARE Library; and (vi) identify the impediments to entering outstanding Navy system software into the SHARE Library and the plan for managing these impediments."

This report also addresses additional inquiries on NOA related to the Surface Domain and the Aegis combat system contained in the report of the SASC on the National Defense Authorization Act for Fiscal Year 2009 (Report No. 110-335). The additional information requested includes:

1. Detailed program plan for implementing OA for the Aegis combat system.
2. How program plans will ensure alignment between system development schedules, development contracts, Navy budget, program management structure, and the Aegis modernization program.
3. The methodology and scheduling for incrementally opening the Aegis combat system.
4. A plan for measuring discrete progress toward achieving a full open system commensurate with introduction of the 2012 Aegis baseline (formerly referred to as ''Commercial-Off-the-Shelf (COTS) Refresh 3'').
5. Potential future benchmarks to govern the transition from sole source to competitive development during the period 2010 to 2013.

6. How the Surface Domain will transfer the lessons learned from this initiative to remaining surface ship combat system development programs.

The Surface Domain consists of Program Executive Offices (PEOs) representing Carriers, Expeditionary Warfare (Littoral and Mine Warfare or LMW), Integrated Warfare Systems (IWS), and Ships. The Air Domain consists of PEO Tactical Aircraft (T) representing PEOs for the Unmanned Aviation and Strike Weapons; Air ASW, Assault and Special Mission Programs, and Program Management (NAVAIR 1.0). The SUBS, C4I, and Space Domains are represented by PEO SUBS, C4I and Space, respectively.

B. Summary of First and Second Reports

The First Report to Congress described the history of NOA[1]; the important role that the OAET, under the direction of the Assistant Secretary of the Navy (Research, Development and Acquisition) or ASN(RDA), plays in providing leadership for NOA; the Department of the Navy's (DON's) long-term focus for implementing OA; and the significant challenges that the Department faces in implementing OA. The First Report also contained information regarding the Navy's two main asset repositories (the PEO C4I Net-Centric Enterprise Solutions for Interoperability (NESI) and the PEO IWS Software, Hardware Asset Re-use Enterprise (SHARE)).

The Second Report to Congress documented the accomplishments of the Naval Enterprise and Domains during the period January 1 to March 31, 2008. These accomplishments were mapped to the three NOA strategic goals established in the Naval OA Strategy in December 2006. This report also provided updates on several of the questions contained in SASC Report 110-77.

II. NOA Accomplishments: April 1, 2008 through June 30, 2008

This report is framed in accordance with the overarching Naval OA Strategy established in December 2006. The strategy is comprised of three overarching goals, addressing the business, technical, and cultural aspects of OA transformation. These goals are supported by efforts performed either across the Naval Enterprise by the OAET or within individual Domains (by PEOs, CoIs, Programs, or System Commands).

A. Goal 1 Change Naval Processes and Business Practices

Goal 1 – Change Naval processes and business practices to use open systems architectures in order to rapidly field affordable, interoperable systems. This goal includes addressing governance challenges; creating policy and guidance materials; developing new business

[1] NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. The Navy and Marine Corps have adopted OA as one way to reduce the rising cost of Naval warfare systems (also known as National Security Systems or NSSs) and platforms and to increase the capabilities of Naval systems.

models (such as the Acoustic-Rapid Commercial-off-the-Shelf Insertion (A-RCI) program; incorporating OA principles and practices in programs and acquisition materials including contracts; and encouraging competition and improving interoperability by making information and design artifacts available for reuse by programs.

- In May 2008, the OA Lead Council provided OA-related questions for incorporation into the Navy's Two-Pass, Six Gate Review Process. This Review Process provides a mechanism to coordinate the generation of operational requirements and acquisition of systems.

- PMA-272's Electronic Warfare (EW) Self-Protection Systems is applying the OA business model to the Air Force's Cost Effective Light Aircraft Missile Protection program – which is partially funded by the Navy – using Interface Control Documents (ICDs) as a key enabler. Working with common ICDs, an OA "plug & protect" approach can be used to protect Navy and Marine Corps aircraft. During live fire events at the Tonopah Test Range, NV, on April 22, 2008, this developmental system scored two successes in two trials. The use of common ICDs proved that fielding of these systems can be achieved at a much more affordable price and in much lighter configurations. These ICDs will be used in all current and future EW acquisition programs.

- The Broad Area Maritime Surveillance (BAMS) Unmanned Aircraft System (UAS) is a major Acquisition Category (ACAT) 1D program that successfully transitioned through the Milestone B decision this quarter. The Joint Precision Approach and Landing System (JPALS) is a major ACAT) 1D program that will be transitioning through its Milestone B decision next quarter. Both programs used the *OA Contract Guidebook* language in their request for proposal, specifications, and Contracts Data Requirements Lists (CDRLs). Both programs also used the Open Architecture Assessment Tool v1.1 which includes the Modular Open Systems Approach (MOSA) Program Assessment and Review Tool (PART).

- In May 2008, PEO IWS received Fiscal Year 2008 funds to pilot the OA / Maintenance Free Operating Process (MFOP) on a surface platform. The MFOP concept combines COTS hardware and software into a highly reliable computing platform that can be deployed without on-board spare parts or maintenance support. The goal of the Surface OA / MFOP pilot is to develop a capability, based on OA principles and an earlier submarine MFOP pilot, which can be reused and scaled across a variety of environments. Since the project started, efforts have focused on development of the functional requirements specification, initiation of the project repository and collaboration tool, establishment of the project management process, evaluation of OA software for re-use in the system, and the establishment of the schedule. Over the next two months, the OA software components will be extracted from SHARE and their platform requirements allocated supporting completion of the requirements analysis. In parallel, a hardware survey will be conducted among competing product lines/ vendors leading to an establishment of the system baseline.

- PEO C4I modified the Performance Work Specification for Net Enabled Command Capability to include OA and net-centric warfare language. Across the Domain, contracting strategies are being constructed such that the award fee structure will be heavily weighted

towards the end of the performance period in order to shift risk to the contractor and incentivize the contractor to perform at a high level throughout the period of performance. Contract award fee language is drawn heavily from the *OA Contract Guidebook*.

- PEO C4I, in collaboration with SPAWAR 2.0 Contracts, is developing a logical decision tree to determine appropriate requirements to insert OA Language into solicitations and re-use standard CDRLs. PEO C4I is also working to develop contract language that can be used in acquiring services associated with Service Oriented Architectures. Once completed, these products will be incorporated into the *OA Contract Guidebook*.

- PEO C4I significantly increased disclosure of design artifacts in the last quarter by submitting 641 artifacts and 10 assets on the NESI Collaboration Web Site.

- PEO C4I has embarked on a Design Budget Initiative in which the goal is to greatly narrow the capability gap between delivered and deployment-ready C4I systems on board surface ships. Design Budget is a Shipbuilding and Conversion, Navy integration process that allows the C4I baseline to evolve transparently to the shipbuilder. Capability delivery is phased to enable the implementation of the most current technology or functionality as close to fleet delivery as possible. Design Budget Components are:
    - Phased Government Furnished Information (GFI) Deliveries
    - 'Just in Time' Government Furnished Equipment (GFE) Deliveries
    - C4I Test and Integration Facility
    - Verbiage in Shipbuilding Contract

  Design Budget has been used on LHA/LHD with great success. In the conventional approach used on LHD 7, 25 Engineering Change Proposals (ECPs) resulted from delivering the entire design package before contract award, which resulted in ECPs executed throughout the ship building process. In the case of LHD 8, information was provided in phases, greatly reducing the number of ECPs required, down to two. This saved over $21 million in ECP and installation costs on LHD 8.

- PEO Space Systems (PEO SS) is an active participant in the Navy Space Cross Functional Team (CFT), which ensures war fighters, resource sponsors and acquisition personnel properly coordinate to meet current and future space needs. The Navy Space CFT developed and maintains the Navy Space Strategy and Roadmap and the Navy Space Needs Letter. Dovetailing with the CFT roadmap, the Office of Naval Research (ONR) has defined a new category of Future Naval Capability (FNC) for Space. PEO SS is a stakeholder in FNC gap definition and enabling capability prioritization and will bring OA principles to bear throughout this process.

- Software Reconfigurable Payloads (SRP) is one potential solution for the development of future space systems. PEO SS is using Science and Technology investment vehicles, such as the Small Business Innovative Research (SBIR) program, to explore the utility of SRP. SRP supports an OA business model by offering a mechanism for inserting new capabilities from new vendors to satellites already in orbit as well as supporting ground-based systems. In addition, PEO SS is collaborating with other programs pursuing this technology that are part of the Transformational Communications Architecture.

B. Goal 2 Provide Naval OA Systems Engineering Leadership

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs. Included in this goal are collaborative efforts in systems engineering; process standardization; leveraging OA to provide quick wins and proofs-of-concepts that provide new capabilities to the Fleet; and providing performance enhancements to fielded systems and development projects.

- On June 13, 2008, ASN(RDA) directed a Systems Engineering Technical Review (SETR) process to be applied within the DON. The Air Domain, under sponsorship of the OAET, is defining the OA checklist to be included with the DoN SETR process in guidance developed by ASN (RDA) Chief Systems Engineer (CHSENG). System Command inputs to this guidance are due in October; the new guidance will be issued in early 2009.

- PEOs C4I and IWS have collaboratively engineered a prototype federated search engine to support the OAET initiative promoting software reuse repositories. The federated search capability allows users in both the PEO C4I NESI Collaboration Site and the PEO IWS SHARE to effectively discover software related assets being developed by each PEO. The prototype was developed using open source software and leverages the respective open architecture models of each PEO. Next steps will include the orchestration of the federated search web service to allow for a single search accessing both reuse repositories and returning all results in a standardized manner.

- The C4I Domain is collaborating with Joint Program Executive Office (JPEO) Joint Tactical Radio System (JTRS) to reuse the results of a JTRS SBIR Phase II effort to develop an Artifact Assessment Tool Suite Infrastructure. This will provide both commands with the framework to plug-n-play a variety of scanning tools and other business process engines, thus automating capabilities such as data rights scan and measuring software quality assurance.

- PEO C4I, PEO IWS, JPEO JTRS, Defense Information Systems Agency, PEO SHIPs, PEO LMW, Air Force, PEO EIS and NAVAIR are developing a Navy Technical Reference Model (NTRM). The NTRM is a combination of the PEO C4I Reference Model and the PEO IWS Common Objective Architecture, which provides traceability and dependence from individual systems within one domain to architectural nodes and systems within another domain.

- OA is being implemented within the Air Domain for life cycle affordability and to manage change, not as a specific capability to be delivered, but as an overarching acquisition strategy. A detailed methodology for Key Open Sub-Systems (KOSS) is under development that will lead to appropriate, repeatable and consistent application of OA to all Air programs. KOSS are the modules that change most often and therefore will have the greatest impact on program cost over its life cycle. The methodology is currently in the demonstration phase of a Lean Six Sigma project. Upon successful completion of the

demonstration at the end of Fiscal Year 2008, the methodology will be replicated in all major ACAT aviation programs in Fiscal Year 2009.

After the KOSS are identified, the key interfaces can be designated, tracked and actively managed. Instead of managing every interface, those key interfaces that most impact cost are jointly managed by industry and the government. The key interfaces will then be managed to ensure consensus-based, widely used, open standards are selected for implementation and are maintained throughout the program's life cycle.

The KOSS OA subsystems can be overlaid on the program roadmap. This will enable a consistent process to ensure alignment between system development schedules, development contracts, the Navy budget, and program management. Currently program roadmaps do not estimate the cost to implement changes due to upgrades and obsolescence. Using the KOSS process, these out-year costs can be estimated beyond the Future Years Defense Program.

- Electronic Attack Squadron (VAQ) 129 at Naval Air Station Whidbey Island, WA, received the first fleet EA-18G Growler airborne electronic attack aircraft on June 2, 2008, ahead of schedule and within budget. The benefits of open systems and architecture allowed the integration of two major systems: the F/A-18G (the derivative of the two-seat F/A-18F Super Hornet), and the Integrated Capability III airborne electronic attack subsystem.

- VH-71, Presidential Helicopter Program (Development) – Initiated OA assessment of Preferred System Solution and alternatives to identify opportunities to potentially reduce Increment 2 fly-away and life cycle costs and weight. The NAVAIR OA independent team completed the initial business and technical analysis of both vendors' architectures and is currently addressing action items and clarification questions. The next phase is to perform a more detailed deep-dive exercise based on the KOSS process that will enable both Government and industry to extract and evaluate OA attributes down to the Shop Replaceable Assembly (SRA) and Integrated Circuit (IC) levels. Long-term capacity for making upgrades to avionics functionality is a key factor in the assessment.

- The Submarine Domain continues to execute its OA Implementation Plan using the A-RCI Technical Insertion (TI) and Advance Processing Builds (APB) business model for Sonar, Combat, and Imaging systems. New efforts include incorporating the VIRGINIA class submarine design into the TI/APB modernization schedule for TI-08 installation in Fiscal Year 2010.

- The Submarine Warfare Federated Tactical System modernization effort merges multiple configurations of subsystems installed on the LOS ANGELES, VIRGINIA, SEAWOLF, and SSGN submarines into common sets of subsystems. Commonality across platforms reduces hardware, software, Integrated Logistic Support, and training costs for NAVSEA and the Fleet. This architecture approach serves as a landing pad for new technologies developed through the APB model. The Submarine Domain will continue with this approach phasing out legacy systems. Current projections shows that over 75% of all LOS

ANGELES, VIRGINIA, SEAWOLF, and SSGN submarines will share a common baseline (TI-06/APB-06 or later) by July 2012.

- The Submarine Domain is modifying its System Engineering development schedule to incorporate an expanding list of submarine subsystems. The goal is to improve long-range planning, system of system level coordination, and phased requirements definition to reduce "churn" of immature capabilities, improve inter-subsystem communications, and implement a milestone or gate review process.

- There is an ongoing cooperative effort with Japan in Ballistic Missile Defense (BMD) OA Research (BMDOAR) (April 2008 – March 2009) that seeks to bilaterally share costs and technical knowledge in order to reduce risk for the planned U.S. Navy/MDA migration of Aegis BMD capabilities into an open architecture implementation. Under BMDOAR, PEO IWS and Aegis BMD Program Office (PD 452) participates in a cooperative project with the Japan Ministry of Defense's Technical Research and Development Institute (TRDI) on the application of OA technologies and systems engineering techniques to sea-based Ballistic Missile Defense. The U.S. and Japan teams cooperatively investigate OA systems engineering processes and methodologies as well as model and conduct requirements analyses on a notional OA Air and Missile Defense capable combat system. These analyses enable the PEO IWS, PD 452, and TRDI participants to execute trade studies of emerging COTS technologies expected to be available on the international market in the coming years that can support OA combat system computing infrastructure development and lifecycle sustainment. BMDOAR produced bilateral OA software component prototypes for computing infrastructure adaptive resource management and tactical display services.

- The following actions have been taken related to the SHARE repository and in re-using assets and artifacts during the period of March through June 2008:[2]
    - Updated the SHARE operations to have submitters prescreen assets for intellectual property markings as an efficiency measure.
    - Completed a Lean Six-Sigma Rapid Improvement Event to streamline the asset audit process.
    - A total of 71 assets (21,589 artifacts) have been made available in SHARE; this quarter the Surface Domain:
        - Processed 42 registration applications (242 total government / industry registrants to date)
        - Completed audits on 7 assets and input into SHARE
            - Conducted 9 audits on asset submissions (2 in process)
        - Processed 4 requests for assets (March-June 2008)
        - Received 10 requests for assets (March-June 2008)
        - Total requests for SHARE assets to date = 260
        - Total number of new assets submitted for availability on SHARE = 8
    - PEO IWS and PEO C4I have actively been developing an enterprise search

[2] **Artifact**: Products of a system/software development life cycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

mechanism using a normalized set of reuse asset search criteria and an XML implementation schema to search both the NESI Collaboration Site and the SHARE repository for reusable assets and then obtain access to those assets.
    - The Marine Corps Systems Command (MARCORSYSCOM) TOPIC (The Online Project Information Center) team is participating in the PEO IWS SHARE and PEO C4I NESI collaboration teams to determine if the integration of TOPIC with SHARE and NESI is possible.

- MARCORSYSCOM has capitalized on opportunities for funding to make the most of all resources available. Examples of this leveraging of joint resources and reuse of specific system components, are:
    - Composite Tracking Network uses the same software as the Navy's Cooperative Engagement Capability re-hosted onto a set of hardware deployable in a High Mobility Multipurpose Wheeled Vehicle.
    - The Air Force-led Theater Battle Management Core System is the principal aviation command and control tool within the Marine Air Command and Control Systems for the development and execution of the Air Tasking Order.
    - Distributed Common Ground System-Marine Corps (DCGS-MC) is the Marine Corps instantiation of Department of Defense's DCGS Family of Systems concept. DCGS-MC will migrate Intelligence, Surveillance, and Reconnaissance information into a single, integrated net-centric baseline.
    - Deputy Commander, Systems Engineering, Interoperability, Architectures & Technology has chartered a government/industry team of subject matter experts to examine the various candidates available from other Services/organizations to fulfill the component level needs of the Marine Air/Ground Task Force Command and Control (Aviation). Some of the specific areas being considered for reuse of existing components are in the area of data link processing, track management and composite tracking.

- ASW Common Data Model (ACDM) Version 1 was completed and published by the ASW COI and its Data Management Working Group. The ACDM is web accessible on a data base. The ACDM establishes a common format for ASW data to be shared and understood by multiple users of ASW data. The data model will evolve incrementally to include data exchange for sensor, training, weapons, and other aspects of the ASW COI. As it evolves, the use of a common data format will enable faster and more automated processes such as contact management, data fusion, and support decentralized decision making via a common tactical picture.

- The ACDM was piloted in an Undersea Warfare – Decision Support System Limited Technical Experiment (LTE) conducted by ONR in April 2008. An outcome of this experiment was that the technical community was able to establish performance benchmarks and identify several areas for further experimentation. The ASW COI will continue to leverage the ONR LTE series as a test bed for incremental development.

C. Goal 3 Change Navy and Marine Corps Cultures to Institutionalize OA Principles

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles. The primary mechanisms for achieving cultural change are formal training and communications and outreach.

- In the area of communications and outreach, CAPT William Chubb, PMA-272, and Mr. Chris Miller, PEO C4I, participated in a *Defense Daily* OA "Webinar" moderated by Geoff Fein of Defense Daily on May 20, 2008. This Webinar was attended by representatives of both the Navy and industry and provided information on specific, OA efforts underway in both Domains, demonstrating concrete actions that the Navy was taking to implement OA.

- A finding from the MOSA PART assessment for JPALS was that the Defense Acquisition University (DAU) Continuous Learning Module (CLM) on MOSA as well as the CLM on Naval OA would be helpful for program office personnel as they begin the System Development and Demonstration (SDD) phase of an acquisition program. An overview of the principles and processes associated with OA was also presented to the BAMS UAS IPT Leads on April 16, 2008.

- The NAVAIR Technical Lead for OA participated in two international events related to OA. At the Aviation Safety Program 2008 Technical Conference, May 28-30, 2008, Munich Germany, the Navy provided a presentation on OA and Extended 1553 data bus. The Air Domain also participated in meetings in Canberra, Australia with Australian Deputy Chief of the Air Force (DCAF) and DCAF staff as part of a continuing dialog in the capacity of Coalition TEAM lead for The Technical Cooperation Program (TTCP), June 18, 2008. The TTCP includes the U.S., England, Canada, Australia and New Zealand.

- Using the OA curriculum that it developed in partnership with DAU, PEO C4I trained a total of 59 Assistant Program Managers, Contract Specialists and other personnel on OA. This training is provided to other domains on a "space available" basis. PEO C4I has also continued its outreach efforts briefing more than 40 members from the PMW 160 Networks, Information Assurance and Enterprise Services Program Office on OA, and participating in the *Defense Daily* OA Webinar held on May 20, 2008.

- The Air Domain is targeting the following programs over the next quarter (July 1 through September 30, 2008) to identify appropriate areas to apply OA principles:
    - Navy Undergraduate jet flight training system, T-45 Follow-on
    - Electronic Warfare Self-Protection Programs
    - Small Tactical Unmanned Aircraft System/Tier II Unmanned Aircraft System (STUAS/Tier II UAS)
    - Advanced Extended Echo Range Multi Static System
    - Presidential Helicopter, Increment 2
    - Congressional Action (Fiscal Year 2008): $1.6M directed to Impact Technologies, Inc to develop OA technologies that use diagnostic reasoning to improve maintenance decisions at the Operational (O) and Intermediate (I) levels.

This is a significant cultural change because it represents focused efforts to address OA early in a program's life.

- PEO SS has brought OA principles to bear through their active involvement in the development of the Naval Space Strategy and Roadmap through the Naval Space Cross Functional Team, which has dovetailed into engagement in the definition and prioritization of gaps associated with the FORCEnet and Space Future Naval Capabilities.

- The Submarine Domain is collaborating with the Surface Domain OA to assist them in transitioning to a Rapid COTS Insertion model. Examples of Team Submarine's business models, guidance, policy, and cultural documents have been provided to PEO IWS for their reference and use.

- Both the Spanish F105 program and the Australian Air Warfare Destroyer programs will be using the Aegis 7 Phase 1 OA programs as a basis for their Combat Systems. Both programs have contributed to the development of Radar Control OA which will be used on the Spanish Frigate, the Air Warfare Destroyer and USN Destroyers. These FMS efforts and follow on lifecycle support represent changes in culture that will contribute to sustaining the combat system engineering industrial base, the radar system industrial base and furthers interoperability with our allies.

- The Marine Corps held an "Acquisition Excellence Day" on June 4, 2008. The Marine Corps' OAET Action Officer supported a kiosk and answered questions on NOA, distributing more that 50 copies of the *OA Contract Guidebook* to attendees.

- NOA information resides within the System Engineering Knowledge Center of MARCORSYSCOM's Total Information Gateway for Enterprise Resources (TIGER) intra-net website. A "lessons learned" tab on the TIGER OA page allows users to enter/review any and all lessons learned regarding their experience with the OA assessment tool or any general lessons learned regarding OA.

- During this reporting period, seventy-three additional Navy/Marine Corps employees have completed the NOA Continuous Learning Module course that is hosted by the DAU.

III. OA Program Plan for the Surface Domain and Aegis Combat System

1. Detailed program plan for implementing OA for the Aegis combat system and Surface Domain.

The Surface Domain is implementing a combat system product line approach to the implementation of OA for the Aegis combat system. This will yield an open combat system based on government-owned architecture and authenticated interfaces.

The first step will decouple the computing hardware from the software, as the Aegis system was initially designed as an integrated and tightly coupled hardware and software Combat System. Converting legacy systems to a distributed, COTS computing environment with modular application software will serve as a foundation for OA implementation.

Affordability is the limiting factor in the rate of transitioning in-service systems to network-based open computing. CG 47 class ships complete transition to a network-based open architecture environment in 2016. The OA-based ACB08 / Technology Insertion (TI) 08 (formerly COTS Refresh (CR) 2[3]) hardware and software is being delivered to USS BUNKER HILL (CG 52) this fiscal year, Fiscal Year 2008. Planning estimates for the DDG 51 class show that by transitioning about three ships per year in Fiscal Years 2012 through 2016 and six ships per year from Fiscal Year 2017 onward, the 62-ship DDG 51 class will complete the transition to network-based open architecture environment by 2025. The actual rate of modernization will ultimately be driven by fleet availability and future budgets.

Alignment and Integration for Aegis Modernization (AMOD) concurrent development is illustrated on Figure 1. Figure 1 also depicts the weapon systems and capabilities to be integrated with AWS in ACB 12 and TI 12 (the related hardware upgrade), to create a Family of Systems (FoS). These capabilities include: (a) Naval Integrated Fire Control - Counter Air (NIFC-CA); (b) Single Integrated Air Picture (SIAP); (c) the Multi-Mission Signal Processor (MMSP); (d) BMD; and (e) Standard Missile 6 (SM-6). All of these parallel efforts, which are currently underway, must merge to support the Navy's requirement to complete initial installation on DDG 53 and CG 62 in Fiscal Year 2012. The FoS upgrades will be completed in incremental software releases between Fiscal Years 2008 and 2011, with final testing in Fiscal Years 2012 and 2013.

In order to integrate the FoS by 2012, the AMOD developer must provide the Platform System Engineering Agent (PSEA) contractor immediate and continuous insight into the various software modules under development. While the government will not have final software documentation and deliverables for these new AMOD software components until the development is complete and the software program is stable and tested, the Navy is working to have "early and often" access to interim releases to facilitate competition and the FoS engineering process.

[3] ACB12 / TI12 corresponds to CR3.

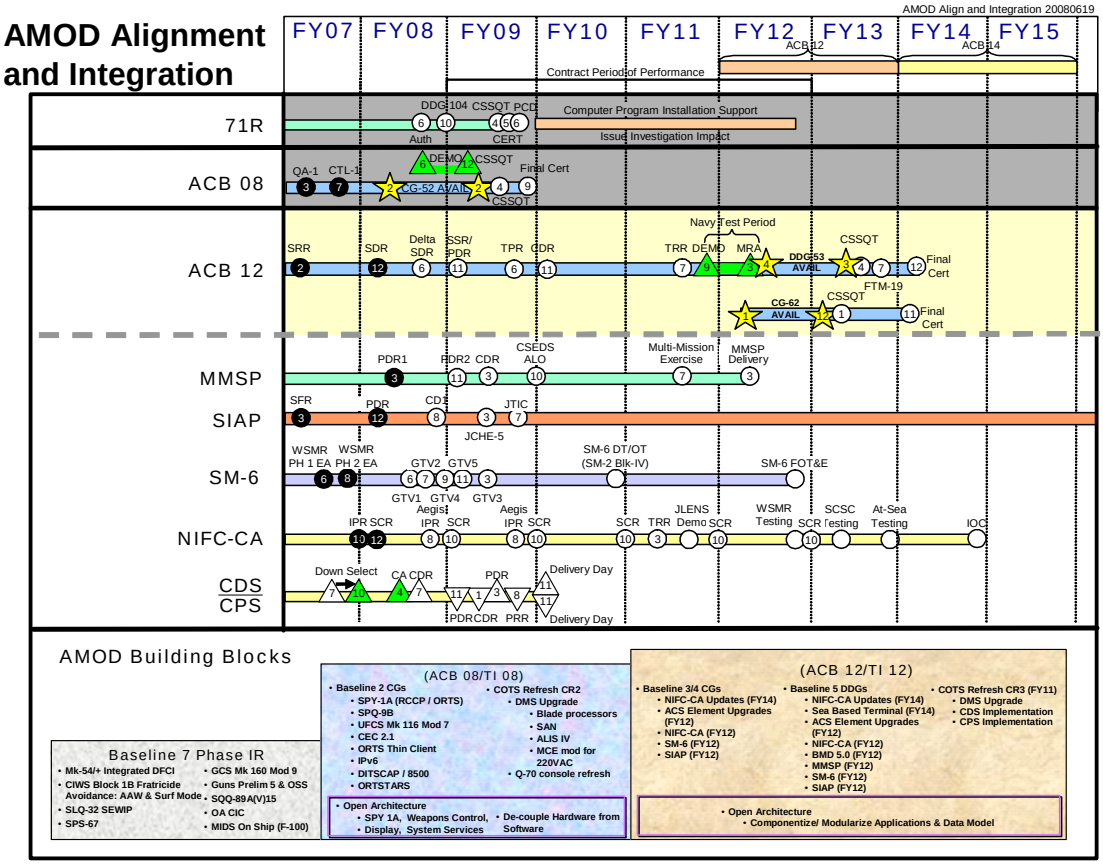


Figure 1

2. How will program plans ensure alignment between system development schedules, development contracts, Navy budget, program management structure, and the Aegis and Surface Navy Combat Systems modernization program?

Figure 1 provides the top-level System Engineering plan for the concurrent development of multiple programs which will culminate in the ACB 12 AMOD delivery on DDG-53 in Fiscal Year 2012.

Managing the roles and responsibilities between key players will ensure alignment across all facets of scheduling, development, personnel and budget for combat system modernization programs. The framework within which PSEAs, Combat System Manager, Warfare System Product Line contractors, and Developers must work requires collaboration among industry partners and the Government to achieve success. Table 1 provides a summary of the roles and responsibilities between Government and industry organizations.

Title	Responsibility	Organization
System Integration Program Manager (SIPM)	Leads systems engineering coordination and management of PEO IWS effort related to each ship program. Represents the systems PEO in creation of PM-to-PM agreements. Serves as primary interface to the manager of the ship program (SPM) (i.e. PEO Carriers, PEO Ships, etc). Coordinates requirements with OPNAV.	Government
Warfare System Product Line (WSPL) Program Manager	Accountable and responsible authority for PEO IWS product lines to include combat systems, sensors, weapons, and weapon systems.	Government (MPM)
Enterprise Systems Architect	Responsible for the establishment and management of enterprise architecture that supports all surface ship platforms. Responsible for establishment of enterprise "system" requirements and requirements allocations to architecture domains.	Government
Combat System Manager (CSM)	Accountable authority for the acquisition of all surface platform combat systems.	Government
Platform System Engineering Agent (PSEA)	Responsible for design, system engineering and managing integration of GFE capability upgrades and other Government furnished products into each ship class combat system with this Government-controlled architecture. Responsible for end-to-end combat system performance.	Industry Contractors
Developers	Responsible for development of technology capabilities and components.	Industry Contractors

Table 1: Program Management Roles and Responsibilities

3. Methodology and scheduling for incrementally opening the Surface Domain combat system.

Figure 2 presents the Navy's vision of activities as it implements OA business practices to the Surface Navy.

While the in-service fleet will continue to be upgraded as cost and schedule allows, CG(X) will be the first full instantiation of Objective Architecture-based combat system. As such, CG(X)'s combat system will be based primarily on components taken from Surface Ship Defense System, Aegis, and DDG-1000. New components developed for CG(X) will be executed in alignment with the Surface Navy's government-controlled architecture and validated interfaces. As such, CG(X) components will be available to the rest of the in-service fleet as the fleet is fitted with a network-based OA computing environment.

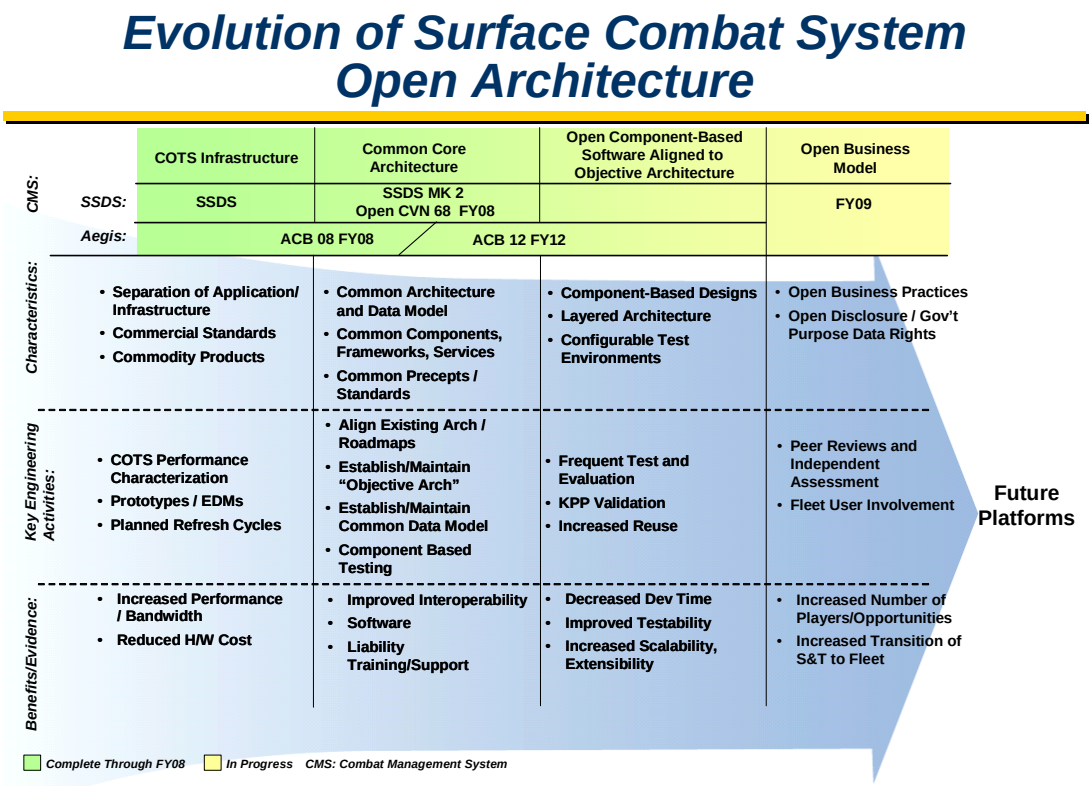


Figure 2

SSDS used modular design and development to fulfill self defense requirements across multiple platform types with existing combat system elements. SSDS Mk 2 OA has inherent flexibility to accommodate change (threat, sensors, weapons, requirements, and ship class modifications). SSDS Mk 2 network-based OA computing environment will complete in 2017 across the SSDS-equipped surface fleet of over 36 ships.

The Aegis system was initially designed as an integrated and tightly coupled hardware and software combat system. OA-based ACB08 / TI08 (formerly CR2) hardware and software being delivered in USS BUNKER HILL in Fiscal Year 2008 begins using modular design. As noted previously, the computing infrastructure will have a common middleware with SSDS. The Navy is presently evaluating the detailed plans to complete the DDG 51 class transition to a Network-based open architecture computing environment. Details will be provided with the President's Budget request for Fiscal Year 2010.

4. Plan for measuring discrete progress toward achieving a fully open systems Surface Domain commensurate with the introduction of the 2012 Aegis Baseline (ACB 12).

Transition to an OA computing environment depends on balance between cost and schedule. The AMOD Alignment and Integration Plan (Figure 1) to the network-based OA computing environment provides key milestones to monitor programs and progress in achieving ACB 12. The basis for measuring our success in transitioning to full open systems Surface Domain is the completion of the work described by year in Figure 1 and the subsequent plans developed to equip CG(X) with a fully open combat system when it delivers.

5. Establishing potential future benchmarks to govern the transitions from sole source to competitive development during the period 2010 to 2013.

The Evolution of Aegis Combat Systems Development (Figure 3) provides the strategic approach to concurrently maintain and modernize the in-service fleet while developing the componentized combat system for ACB 12 and beyond.

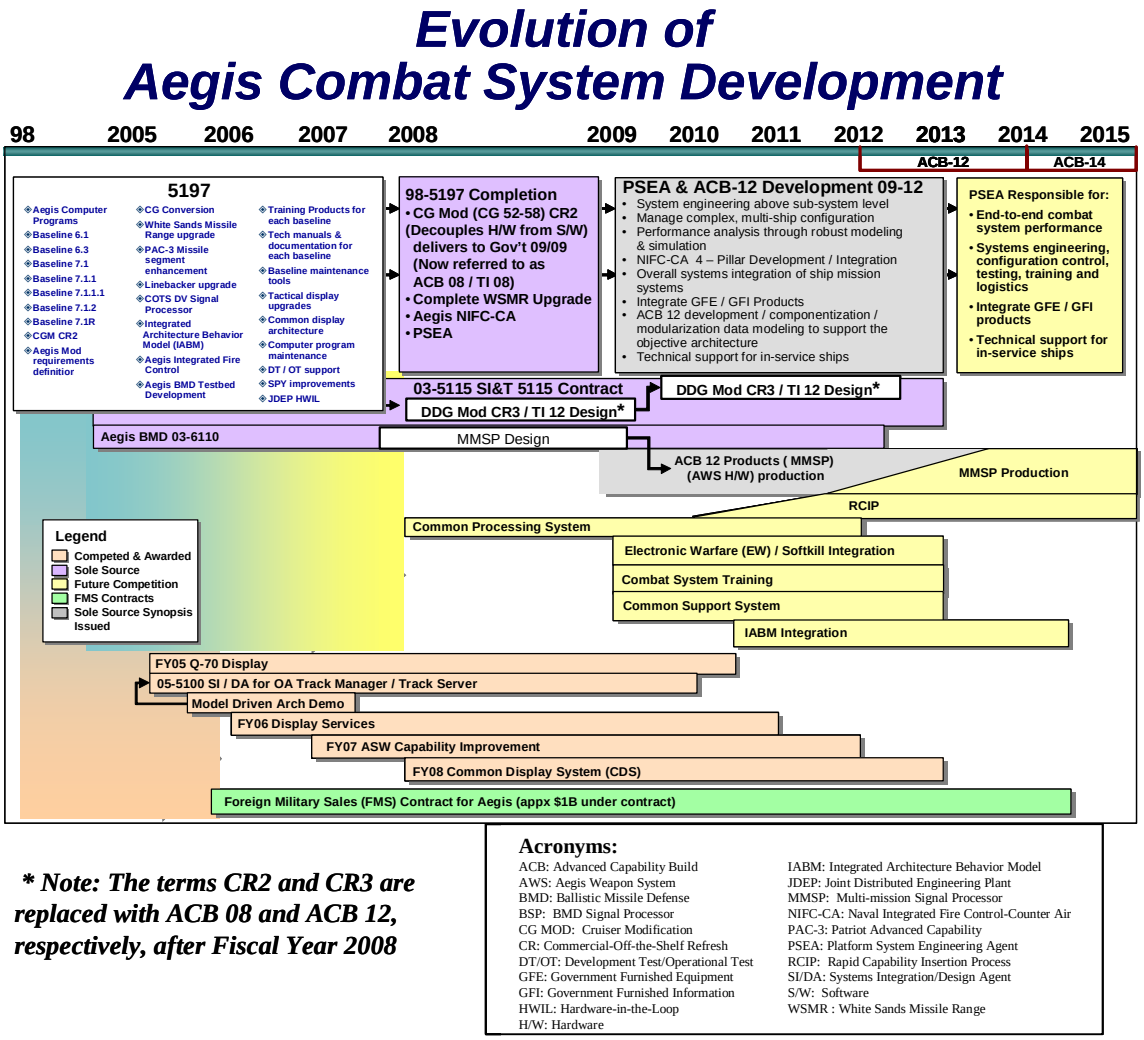


Figure 3

This modernization approach depends on common computer hardware refreshed on a defined cycle. The ACB cycle also allows for software maintenance updates and fielding of war fighting capability improvements to pace the threat.

Competition is being introduced as the combat system is being componentized. The documentation for componentization of the Aegis combat system software will be delivered with ACB 12. Subsequently, when a new development to a combat system component is

necessary, it can be competed. The Figure 3 legend indicates those components that have been completed, those that are sole source and those that will be competed in the future.

Surface Combat System Top Level Objective Architecture

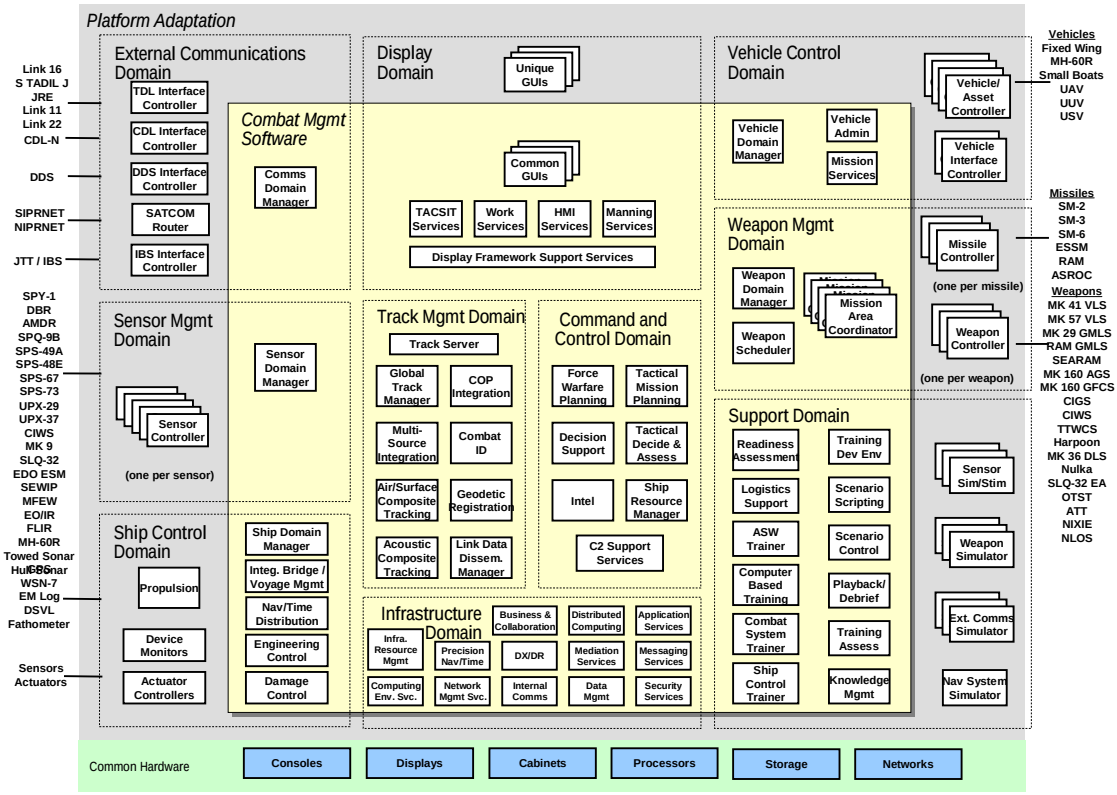
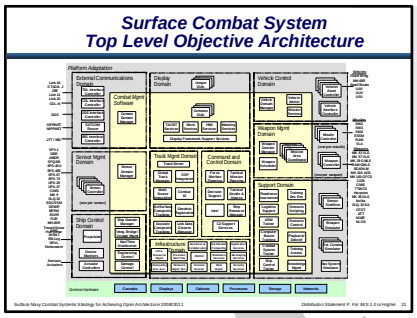


Figure 4

One of the keys to competition is having a government-defined architecture with validated interfaces to achieve the Surface Combat System Top Level Objective Architecture (Figure 4). An Architecture Description Document (ADD) is under development that will become the framework for future surface combat system software architectures. In the ADD, the Navy establishes the modular architecture for surface combat systems, describes system layering, and specifies the use of a publish/subscribe mechanism to exchange data that is defined in a common data model. The ADD incorporates the Domain's lessons learned to date and will be aligned with and supportive of related acquisition documents, including the Surface Navy Combat Systems Development Strategy Acquisition Management Plan. The ADD will define a common structure for allocating requirements to individual software components that can be reused across different combat systems using a software product line approach. A draft of the ADD will be released to industry for review and comment prior to it being baselined as an acquisition document.

Combat Systems Objective Architecture Component Phasing Plan to Achieve CG(X)



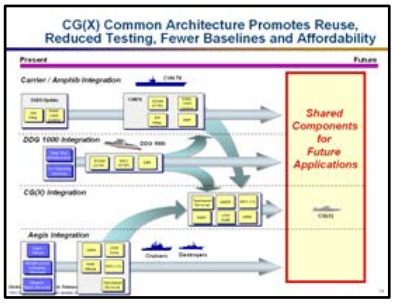
- **Objective Architecture defined**
- **Guides alignment of in-service and new construction systems architectures**
- **Objective Architecture is the desired end state for all surface Navy Combat Systems**

Architecture Description Document (ADD)

Describes Objective Architecture and defines Government controlled Components and Interfaces

Component Phasing Plan

- **Initial component phasing plan defined**
- **Initial validation components for combat system & CG(X) availability**
- **Developing combat system top level architecture & data model**



- **CG(X) will have the first combat system that realizes the objective architecture**

Figure 5

Today's architectures are specified in our program of records' architectural views; the component phasing plan shows when components can be incorporated into the new architecture, and the objective architecture shows the end state of components with government defined and authenticated interfaces. The top level architecture (Figure 5, top left) is the basis for the alignment of programs of record and the validation of components to government specified interfaces. The result is the creation of a set of components aligned to the Objective Architecture. This set is used to provide the combat system for CG(X) and is available for reuse across multiple platforms.

6. How the Surface Domain will transfer the lessons learned from this initiative to remaining surface ship combat system development programs.

Artifacts, documents, and lessons learned will be held in SHARE and future repositories for utilization in future combat system programs across the Navy Enterprise. Lessons learned will be formally captured in frequent updates to documents such as the ADD and Systems Engineering Plans.

7. Examples of or plans to address inter-domain collaboration/dependencies (such as re-use of other domain components, joint acquisition efforts using OA principles, etc.).

The Surface Domain is an active collaboration with other domains. For example, PEO C4I is involved with PEO IWS in developing Surface Combat System Architecture strategies. PEO IWS is also involved in PEO C4I's and SPAWAR's Early Adopters efforts in order to ensure alignment and integration between future C4I and combat systems. This collaboration has included creation of models that form a tangible, real-time basis to trade components from one domain to the other and simulate the effects. Several scenarios have been proposed with one of those scenarios run to date that illustrated that Early Adopters can assimilate the Display Local Area Network from the Combat System. These and similar models can prove the feasibility of architectures prior to codifying requirements. Additionally, the Surface Domain has used lessons learned from Team Submarine's A-RCI efforts to develop the Surface Navy Rapid Capability Insertion Process.

PEO IWS is responsible for the Common Display System (CDS) and Common Processing System (CPS) programs that provide core Display and Processing systems in support of the common objective architecture for combat systems and Surface OA Way Ahead. The CDS contract was awarded in November 2007 while the CPS Request for Proposals was released in March 2008. Both CDS and CPS provide component elements to the objective architecture being defined in the ADD; Aegis ACB12 and other programs will use items from these programs.

As future open combat systems are developed, the Surface Domain will continue to engage other domains, including the sharing of the Surface Domain ADD with other domains. This will help ensure component development alignment, where appropriate, for reuse in Surface Domain combat systems. Additionally, the SHARE repository is accessible to all other domains and witness to the collaborative environment the Surface Domain has fostered.

IV. Summary

The Third Naval Open Architecture Report to Congress provides an update of NOA program accomplishments since the Second Report was submitted to Congress in May 2008, focusing on the period of April 1 to June 30, 2008. It also provides the program plan for implementing OA for the Aegis Combat System and answers to the questions contained in the Fiscal Year 2009 Senate Armed Services Committee Report 110-335.

The Naval Enterprise continues to make significant progress in the implementation of OA. Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements at reduced costs. Continued progress is anticipated next quarter and will be reported in subsequent Reports to Congress.

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Robert C. Byrd
Chairman,
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

JUL 31 2008

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps' operational ranges used to support training and range activities of the Marine Corps." I am providing an interim response on behalf of the Secretary.

The Department is resolving final comments to fully address the NDAA requirements and will provide the final report by September 8, 2008. Please let me know if I can be of further assistance.

Sincerely,

BJ Penn

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable David R. Obey
Chairman,
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

JUL 31 2008

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps' operational ranges used to support training and range activities of the Marine Corps." I am providing an interim response on behalf of the Secretary.

The Department is resolving final comments to fully address the NDAA requirements and will provide the final report by September 8, 2008. Please let me know if I can be of further assistance.

Sincerely,

BJ Penn

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction
and Veterans' Affairs
Committee on Appropriations
United States Senate
Washington, DC 20510

JUL 31 2008

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps' operational ranges used to support training and range activities of the Marine Corps." I am providing an interim response on behalf of the Secretary.

The Department is resolving final comments to fully address the NDAA requirements and will provide the final report by September 8, 2008. Please let me know if I can be of further assistance.

Sincerely,

BJ Penn

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction, Veterans' Affairs, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

JUL 31 2008

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps' operational ranges used to support training and range activities of the Marine Corps." I am providing an interim response on behalf of the Secretary.

The Department is resolving final comments to fully address the NDAA requirements and will provide the final report by September 8, 2008. Please let me know if I can be of further assistance.

Sincerely,

BJ Penn

Copy to:
The Honorable Zach Wamp
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
WASHINGTON, D.C. 20360-5000

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps' operational ranges used to support training and range activities of the Marine Corps." I am providing an interim response on behalf of the Secretary.

The Department is resolving final comments to fully address the NDAA requirements and will provide the final report by September 8, 2008. Please let me know if I can be of further assistance.

Sincerely,

BJP

BJ Penn

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
WASHINGTON, D.C. 20360-5000

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps' operational ranges used to support training and range activities of the Marine Corps." I am providing an interim response on behalf of the Secretary.

The Department is resolving final comments to fully address the NDAA requirements and will provide the final report by September 8, 2008. Please let me know if I can be of further assistance.

Sincerely,

BJ Penn

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

ACTION MEMO

FOR: SECRETARY OF THE NAVY

FROM: BJ Penn, Assistant Secretary of the Navy (I & E)

SUBJECT: Marine Corps Operational Ranges Report to Congress

- TAB A contains the cover letters submitting the subject report the appropriate members of the United States Senate and United States House of Representatives.
- TAB B is USMC info Memo forwarding the subject report to SECNAV.
- TAB C is the revised Marine Corps Operational Range Report to Congress.
- The revised report answers the questions posed by Congress.
- Revisions were made to the discussion of Marine Corps Mountain Warfare Training Center (MCMWTC) and Marianas ranges in response to your earlier review comments. The revisions provide some insight into future needs and investments at MCMWT and Guam but do not present a substantial discussion of those issues because specific actions are still at the preliminary planning stage.

RECOMMENDATION: SECNAV sign the letters at TAB A.

COORDINATION: TAB D.

Attachments:
As stated

Prepared by: Desiree Masterson, ODASN (E), (703) 693-1795

3 AUG 08

AASN
RELEASE

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 3, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps."

The enclosed report entitled "Marine Corps Operational Ranges" addresses the information requested in the NDAA based on the Department of the Navy's current assessments and projections. It includes a description of current and future land requirements of Marine Corps operational ranges and the prioritization process and investment strategies to accommodate range expansion and modernization. Section 6 of this report addresses the proposed expansion of Twentynine Palms.

A copy this report is also being provided to Chairmen Skelton, Byrd, Obey, Johnson, and Edwards. As always, if I can of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 3, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps."

The enclosed report entitled "Marine Corps Operational Ranges" addresses the information requested in the NDAA based on the Department of the Navy's current assessments and projections. It includes a description of current and future land requirements of Marine Corps operational ranges and the prioritization process and investment strategies to accommodate range expansion and modernization. Section 6 of this report addresses the proposed expansion of Twentynine Palms.

A copy this report is also being provided to Chairmen Levin, Byrd, Obey, Johnson, and Edwards. As always, if I can of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 3, 2008

The Honorable Robert C. Byrd
Chairman, Committee on
Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps."

The enclosed report entitled "Marine Corps Operational Ranges" addresses the information requested in the NDAA based on the Department of the Navy's current assessments and projections. It includes a description of current and future land requirements of Marine Corps operational ranges and the prioritization process and investment strategies to accommodate range expansion and modernization. Section 6 of this report addresses the proposed expansion of Twentynine Palms.

A copy this report is also being provided to Chairmen Levin, Skelton, Obey, Johnson, and Edwards. As always, if I can of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 3, 2008

The Honorable David R. Obey
Chairman, Committee on
Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps."

The enclosed report entitled "Marine Corps Operational Ranges" addresses the information requested in the NDAA based on the Department of the Navy's current assessments and projections. It includes a description of current and future land requirements of Marine Corps operational ranges and the prioritization process and investment strategies to accommodate range expansion and modernization. Section 6 of this report addresses the proposed expansion of Twentynine Palms.

A copy this report is also being provided to Chairmen Levin, Skelton, Byrd, Johnson, and Edwards. As always, if I can of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 3, 2008

The Honorable Tim Johnson
Chairman, Subcommittee on Military
Construction, Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps."

The enclosed report entitled "Marine Corps Operational Ranges" addresses the information requested in the NDAA based on the Department of the Navy's current assessments and projections. It includes a description of current and future land requirements of Marine Corps operational ranges and the prioritization process and investment strategies to accommodate range expansion and modernization. Section 6 of this report addresses the proposed expansion of Twentynine Palms.

A copy this report is also being provided to Chairmen Levin, Skelton, Byrd, Obey, and Edwards. As always, if I can of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 3, 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military
Construction, Veterans Affairs, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Section 2829 of the National Defense Authorization Act (NDAA) for Fiscal Year 2008 directs the Secretary of the Navy to submit "a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps."

The enclosed report entitled "Marine Corps Operational Ranges" addresses the information requested in the NDAA based on the Department of the Navy's current assessments and projections. It includes a description of current and future land requirements of Marine Corps operational ranges and the prioritization process and investment strategies to accommodate range expansion and modernization. Section 6 of this report addresses the proposed expansion of Twentynine Palms.

A copy this report is also being provided to Chairmen Levin, Skelton, Byrd, Obey, and Johnson. As always, if I can of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

Marine Corps Operational Ranges

Report to the
Committee on Armed Services of the
United States Senate
&
Armed Services Committee of the
United States House of Representatives

Pursuant to Section 2829 of the
National Defense Authorization Act for Fiscal Year 2008

28 August 2008

This Page Intentionally Left Blank

EXECUTIVE SUMMARY

This report addresses the Congressional reporting requirement of Section 2829 of the National Defense Authorization Act for Fiscal Year 2008. Section 2829 required the Secretary of the Navy to report on potential expansion of Marine Corps operational ranges with an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps. Specific Section 2829 language is provided in Appendix A.

The Marine Corps is deeply committed to its most important responsibility - winning the Nation's battles. Marines, Marine units, and Marine Air Ground Task Forces (MAGTFs) require operational ranges that meet the training demands of modern warfare; including sufficient land area, airspace, sea space, frequency spectrum, and training range infrastructure to safely and effectively accomplish the full spectrum of mission-essential training.

The Marine Corps' Mission Capable Ranges Initiative, executed by the Training and Education Command , guides Marine Corps range planning and investment. The objective of this initiative is to develop and sustain a comprehensive portfolio of modern ranges and controlled airspace that supports the entire training continuum, from the individual training level to large-scale exercises of the MAGTF. Live-fire training events are a hallmark of, and critical to, the Marines Corps' approach to preparing for combat, and its range modernization and transformation programs reflect this focus.

Identifying operational range requirements is a dynamic process, in that range requirements depend on training needs determined by changing operational requirements. Of immediate concern, Marine Corps ranges must support training cycles for wartime deployments. Moreover, range capabilities must be enhanced to support both current and future training with mission-capable ranges.

This Report addresses current and future land requirements of Marine Corps operational ranges, and the prioritization process and investment strategies to accommodate range expansion and modernization. Airspace for military operations is a vital component of the Marine Corps' required range capability. A three-dimensional training environment is necessary for live-fire training systems such as utilizing artillery and mortars and for all aviation training activities. Airspace for military operations, while not extensively addressed in this Report,

must be considered in operational range planning and investment.

Marine Corps range infrastructure includes 14 operational ranges at the following installations:

Major Operational Ranges

- Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC), Twenty-nine Palms, California
- Marine Corps Base (MCB) Camp Pendleton, California
- MCB Camp Lejeune, North Carolina
- Marine Corps Air Station (MCAS) Cherry Point, North Carolina
- MCAS Yuma, Arizona (and associated operational ranges in California)
- MCB Hawaii
- MCB Camp Butler, Okinawa
- MCAS Beaufort, South Carolina and Townsend Bombing Range, Georgia
- MCB Quantico, Virginia

Other Installations with Ranges

- Marine Corps Recruit Depot Parris Island, South Carolina
- MCAS Miramar, California
- Marine Corps Logistics Base (MCLB) Albany, Georgia
- MCLB Barstow, California
- Marine Corps Mountain Warfare Training Center (MCMWTC) Bridgeport, California

Detailed descriptions of these operational ranges are provided in Appendix B of this Report.

The Mission Capable Ranges program implements detailed planning processes for determining range requirements and investment priorities. One foundation of the Mission Capable Ranges Initiative is the *Marine Corps Training Ranges Required Capabilities Document* of June 2006. The *Required Capabilities Document* describes training land, airspace and required range facilities necessary to execute the training continuum. Based on the *Required Capabilities*

Document, installation-specific Range Complex Management Plans are developed to guide execution of range transformation. The Marine Corps has initiated, programmed to fund, or completed Range Complex Management Plans for its major training bases.

Lessons learned in Iraq and Afghanistan, and pre-deployment training for those operations, have led to validation of key range requirements identified in the Range Complex Management Plans and to development of new range requirements. These include urban training complexes, convoy operations courses, counter-IED (improvised explosive device) training resources, improved targetry and threat systems, a mountain operations training capability, and the general upgrade of outdated facilities to meet the increased throughput demands of combat deployments.

Continued analysis and the fielding of new systems may cause other requirements to surface in the future, but today the largest gaps in training capability include:

- the inability to exercise a large scale MAGTF in a "live" training scenario.
- the lack of a capable east coast aviation training range to accommodate the increased airspace and weapons requirements of precision guided munitions and the joint strike fighter.
- the inadequate training opportunities for the Marine units stationed in the western Pacific.

Section 2 of this Report provides detailed information about operational range requirements.

Each major training installation contains a suite of maneuver areas and fixed ranges of varying complexity, generally including small-arms ranges with fixed firing points, multi-purpose live-fire and maneuver areas, large non-live fire maneuver training lands, and specialized ranges such as facilities for conducting military operations in urban terrain (MOUT). In order to accomplish their respective missions, Marine Corps installations are managed to maximize efficient use of training land and resources.

However, not all of the land on Marine Corps operational ranges is, or can be, devoted to training. Moreover, land uses external to an operational range often create impediments to use of military land for training purposes. Encroachment by incompatible development into the vicinity

of Marine Corps installations, operational ranges, and training areas can create resource (land, air, water, frequency spectrum) uses that are incompatible with current and future military training and general mission activities.

No operational range in the Marine Corps inventory currently includes or is projected to include surplus land. Deficits in available training land currently exist at many of the Marine Corps' operational ranges, as discussed in Section 3 of this Report.

Geographical and fiscal constraints will prevent the Marine Corps from addressing all shortfalls. The Marine Corps will continue to rely on the resources it has and access to other Service ranges to meet most of its training needs. (Proposed land acquisition and airspace establishment at MCAGCC/MAGTFTC is a notable exception, as discussed below and in detail in Section 6 of the Report).

Although all shortfalls, particularly land deficits, cannot be addressed, the Marine Corps is aggressively investing in range modernization and transformation. Marine Corps planning is soundly grounded in six cornerstone objectives:

- Preserve & enhance live fire combined arms training, including the capability to support large-scale exercises.
- Recapture littoral training capabilities at Camp Lejeune and Camp Pendleton.
- Leverage technology; provide feedback for better training.
- Mitigate encroachment.
- Facilitate cross-service utilization.
- Support the Joint National Training Capability.

Since 2004 the Marine Corps has invested (or is in the process of investing) nearly $500 million in its ranges. This effort constitutes the largest investment program in Marine Corps training ranges since World War II. These investments have significantly enhanced the capability of Marine Corps operational ranges to accomplish their missions.

Section 4 of this Report describes the Marine Corps' investment strategy and prioritization process for range modernization and transformation.

Use of other Services' and allied nations' ranges is critical to Marine Corps unit level training, as discussed in Section 5 of this Report. Priority of access to these training lands, however, necessarily rests with the Services and forces that the ranges exist to support. Access and scheduling constraints exist, and are compounded by the needs of other Services for increasingly greater land areas to conduct required training, and increased use of ranges to meet wartime training requirements. For these reasons, increased cross-Service utilization is neither a practical nor complete solution to space constraints at Marine Corps ranges.

Section 6 of this Report addresses proposed expansion of the Marine Corps' premiere MAGTF training base at Twenty-nine Palms. MCAGCC/MAGTFTC lacks sufficient land and airspace to conduct required training. Land acquisition and airspace establishment at MCAGCC/MAGTFTC would substantially enhance both the capability and capacity of the range to conduct required, doctrinally appropriate training by providing the following range capabilities:

- Sufficient range area and airspace for execution of live-fire combined arms exercises employing a MAGTF up to the size of the most capable Marine Expeditionary Brigade (MEB) as the exercise force in a multi-day capstone training event.
- Depth of battlespace contiguous to the Combined Arms MOUT Facility permitting complex large-scale operations in an urban context.
- Sufficient land area and airspace to host large joint training exercises.
- Ranges including live-fire and maneuver ranges, for company/battalion-sized forces which comprise the MAGTF exercise forces to conduct live-fire and maneuver pre-exercise "work up" training, including rehearsal exercises.
- Ranges to support required training at home station of tenant units, which currently include operational forces of the 1st Marine Division, 3rd Marine Aircraft Wing, and 1st Marine Logistics Group.
- Ranges to support required training of additional operational forces to be stationed at MCAGCC/MAGTFTC as a result of the fiscal year 2008 "Grow the Force" initiative.

- Ranges to support newly implemented Service-level training initiatives, including transition team training and advanced ground combat element staff training in combined arms coordination.
- The capability to support other required range events, including allied training, without disrupting MAGTF or unit-level training programs.

Land acquisition and airspace establishment at MCAGCC/MAGTFTC would significantly enhance the ability of the Marine Corps to continue to provide trained Marines, Marine units, and MAGTFs in furtherance of national security objectives.

TABLE OF CONTENTS

1 Marine Corps Operational Ranges 1-1

1.1 Operational Ranges and the Training Continuum 1-2

1.2 Airspace for Military Operations 1-5

1.3 Operational Range Descriptions 1-6

2 Projected Changes in Operational Range Requirements 2-1

2.1 Range-Specific Planning: Deliberate Planning and Emerging Requirements 2-1

2.2 Projected Range Requirements: Service-Level Priorities 2-3

2.3 Projected Range Requirements and the Proposed Increase in the Active Duty Force 2-4

3 Projected Deficit or Surplus of Land at Marine Corps Operational Ranges 3-1

3.1 Constraints on Training Uses of Marine Corps Lands 3-1

3.2 Projected Deficit or Surplus of Land 3-2

3.3 Addressing Projected Deficits of Land 3-4

4 Prioritization Process and Investment Strategy 4-1

4.1 The Vision 4-1

4.2 The Process 4-4

4.3 The Program 4-4

4.4 The Future 4-7

5 Alternatives to expansion 5-1

5.1 Assessment of Joint Use 5-1

5.2 Alternatives to Expansion 5-4

6 Expansion of Marine Corps Air Ground Combat Center/Marine Air Ground TASK FORCE TRAINING COMMAND, Twentynine Palms 6-1

6.1 Potential Military Value of Expanding Land and Airspace of the Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC), Twentynine Palms 6-1

6.2 Background: The Expanding Mission of Twentynine Palms 6-5

6.2.1 World War Two to 1974 - Focus on Artillery Training 6-5
6.2.2 1974-2003 - Development of the Premiere MAGTF Training Base 6-5
6.2.3 2003-Present - Posturing for the Future 6-7
6.3 The Combined Arms Exercise Program 6-8
6.3.1 "Traditional" CAX 6-8
6.3.2 Mojave Viper 6-9
6.3.3 Future CAX 6-10
6.3.4 Large-Scale Exercises: MEB Combined Arms Training 6-11
6.4 Other Marine Corps Service-Level Training 6-12
6.5 Individual and Unit Level Training Requirements .. 6-13
6.6 Cost of Expanding MCAGCC/MAGTFTC 6-14
6.7 Potential Legal or Practical Impediments to Expansion 6-14
APPENDIX A: Section 2829 of the National Defense Authorization Act for Fiscal Year 2008 1
APPENDIX B: Operational Range Descriptions 1
1 OPERATIONAL RANGE DESCRIPTIONS 1
1.1 Marine Corps Air Ground Combat Center/Marine Air Ground Task Force Training Command, Twentynine Palms 1
1.1.1 Size 1
1.1.2 Operational Range Description 1
1.1.3 Range Enhancements 2003-Present 4
1.1.4 Mission Essential Tasks Supported 4
1.2 Marine Corps Base Camp Pendleton 6
1.2.1 Size 6
1.2.2 Operational Range Description 7
1.2.3 Range Enhancements 2003-Present 9
1.2.4 Mission Essential Tasks Supported 9
1.3 Marine Corps Base Camp Lejeune 11
1.3.1 Size 11
1.3.2 Operational Range Description 12
1.3.3 Range Enhancements 2003-Present 14

1.3.4 Mission Essential Tasks Supported 14
1.4 Marine Corps Air Station Cherry Point 16
1.4.1 Size 16
1.4.2 Operational Range Description 17
1.4.3 Range Enhancements 2003-Present 19
1.4.4 Mission Essential Tasks Supported 19
1.5 Marine Corps Air Station Yuma Ranges 20
1.5.1 Size 20
1.5.2 Operational Range Description 21
1.5.3 Range Enhancements 2003-Present 24
1.5.4 Mission Essential Tasks Supported 24
1.6 Marine Corps Base Camp Butler 26
1.6.1 Size 26
1.6.2 Range Enhancements 2003-Present 29
1.6.3 Mission Essential Tasks Supported 30
1.7 Marine Corps Base Hawaii 32
1.7.1 Size 32
1.7.2 Operational Range Description 32
1.7.3 Range Enhancements 2003-Present 33
1.7.4 Mission Essential Tasks Supported 33
1.8 Marine Corps Air Station Beaufort: Townsend Bombing Range 35
1.8.1 Size 35
1.8.2 Operational Range Description 35
1.8.3 Range Enhancements 2003-Present 37
1.8.4 Mission Essential Tasks Supported 37
1.9 Marine Corps Base Quantico 38
1.9.1 Size 38
1.9.2 Operational Range Description 39
1.9.3 Range Enhancements 2003-Present 40
1.9.4 Mission Essential Tasks Supported 40
1.10 Marine Corps Recruit Depot Parris Island 42
1.10.1 Size 42

1.10.2 Operational Range Description 42
1.10.3 Range Enhancements 2003-Present 43
1.10.4 Mission Essential Tasks Supported 43
1.11 Marine Corps Air Station Miramar 45
1.11.1 Size 45
1.11.2 Operational Range Description 45
1.11.3 Range Enhancements 2003-Present 46
1.11.4 Mission Essential Tasks Supported 46
1.12 Marine Corps Logistics Base Albany, Georgia 48
1.12.1 Size 48
1.12.2 Operational Range Description 48
1.12.3 Range Enhancements 2003-Present 49
1.12.4 Mission Essential Tasks Supported 49
1.13 Marine Corps Logistics Base Barstow 50
1.13.1 Operational Range Description 50
1.13.2 Range Enhancements 2003-Present 51
1.13.3 Mission Essential Tasks Supported 51
1.14 Marine Corps Mountain Warfare Training Center Bridgeport 53
1.14.1 Size 53
1.14.2 Operational Range Description 53
1.14.3 Range Enhancements 2003-Present 54
1.14.4 Mission Essential Tasks Supported 54

List of Figures

Figure 1: Land Use On and Contiguous to Camp Pendleton .. 3-5
Figure 2: New Military Operations in Urban Terrain (MOUT) Facility at Camp Lejeune 4-5
Figure 3: New MOUT Facility at Camp Pendleton 4-5
Figure 4: New MOUT Facilities at MCAGCC/MAGTFTC, Twentynine Palms 4-6
Figure 5: Multiple, Simultaneous Training Events at MCAGCC/MAGTFTC 6-3

List of Report Tables

Table 1: Training Levels and Range Requirements 1-2

Table 2: MCAGCC/MAGTFTC Expansion—Estimated Costs 6-14

List of Appendix Tables

Table B-1: MCAGCC/MAGTFTC Twentynine Palms: Summary Description 2

Table B-2: Training Tasks Supported-MCAGCC/MAGTFTC Twentynine Palms 6

Table B-3: MCB Camp Pendleton: Summary Description 7

Table B-4: Training Tasks Supported-MCB Camp Pendleton ... 11

Table B-5: MCB Camp Lejeune: Summary Description 12

Table B-6: Training Tasks Supported-MCB Camp Lejeune 16

Table B-7: MCAS Cherry Point: Summary Description 17

Table B-8: Training Tasks Supported-MCAS Cherry Point 20

Table B-9: MCAS Yuma: Summary Description 21

Table B-10: Training Tasks Supported-MCAS Yuma 25

Table B-11: MCB Camp Butler/Camp Fuji FMA: Summary Description 27

Table B-12: Training Tasks Supported-MCB Camp Butler/Camp Fuji FMA 31

Table B-13: Marine Corps Base Hawaii: Summary Description 32

Table B-14: Training Tasks Supported-MCB Hawaii 34

Table B-15: MCAS Beaufort/Townsend Bombing Range: Summary Description 36

Table B-16: Training Tasks Supported-MCAS Beaufort/Townsend Bombing Range 38

Table B-17: MCB Quantico: Summary Description 39

Table B-18: Training Tasks Supported-MCB Quantico 41

Table B-19: MCRD Parris Island: Summary Description 42

Table B-20: Training Tasks Supported-MCRD Parris Island .. 45

Table B-21: MCAS Miramar: Summary Description 46

Table B-22: Training Tasks Supported-MCAS Miramar 47

Table B-23: MCLB Albany: Summary Description 48

Table B-24: Training Tasks Supported-MCLB Albany 50

Table B-25: MCLB Barstow: Summary Description 51
Table B-26: Training Tasks Supported-MCLB Barstow 52
Table B-27: MCMWTC Bridgeport: Summary Description 544
Table B-28: Training Tasks Supported-MCMWTC Bridgeport .. 566

1 MARINE CORPS OPERATIONAL RANGES

"(1) The size, description, and mission-essential tasks supported by each major Marine Corps operational range during fiscal year 2003."

The Marine Corps is deeply committed to its most important responsibility – winning the Nation's battles. As the Commandant, General Conway stated in *Marine Corps Vision and Strategy 2025*, June 2008, "The Marine Corps of 2025 will fight and win our Nation's battles with multi-capable MAGTFs [Marine Air Ground Task Force], either from the sea or in sustained operations ashore." Success in warfighting demands continuous transformation, innovation, and experimentation, which are hallmarks of the Marine Corps. The relationship between ranges and readiness has long been recognized but has not always been closely analyzed. Increasingly over the past decade, the Marine Corps has recognized that transforming its installations and ranges is essential to aligning its infrastructure to support forces, weapon systems, doctrine, and tactics for the foreseeable future. The foundation for this transformation is articulated by *Marine Corps Installations 2020* (I-2020, April 2001), under the oversight of Headquarters, U.S. Marine Corps, Installations and Logistics. As the Commandant stated in his I-2020 guidance, "Implementing this Installations 2020 vision will enhance combat readiness by providing installations that fully and continuously meet the needs of the warfighter."

In 2001, the Marine Corps also established the Range and Training Area Management Division within the Training and Education Command of the Marine Corps Combat Development Command. Marine Corps Combat Development Command and Training and Education Command are charged with developing systems, operational doctrine, and training requirements for Marine Corps forces. The Range and Training Area Management Division is the Marine Corps' Executive Agent for range and training area management.

Range modernization programs are specifically addressed in the Range and Training Area Management Division's Mission Capable Ranges Initiative, which guides Marine Corps range planning and investment. The objective of this initiative is to develop and sustain a comprehensive portfolio of modern ranges and controlled airspace that supports the entire training continuum, from the individual training level to large-scale exercises of the Marine Air Ground Task Force (MAGTF). Implementation of the Mission Capable

Ranges Initiative is well underway, as discussed in detail throughout this Report.

1.1 Operational Ranges and the Training Continuum

Marine Corps combat readiness depends on the continued availability of ranges and training areas that provide realistic, mission-oriented training. Training proceeds on a continuum, from entry-level training of individual Marines in basic military skills to large-scale exercises involving MAGTFs.[1] Live-fire training events are a hallmark of, and critical to, the Marines Corps' approach to preparing for combat at each stage of the continuum: individual skills training, unit training for MAGTF elements, Marine Expeditionary Unit (MEU)-level training, and Marine Expeditionary Brigade (MEB) / large-scale MAGTF training.[2]

The training continuum employs a building-block approach, in which individual skills training supports small-unit training, which in turn supports increasingly complex larger unit training, culminating in Service-level pre-deployment exercises. Each level of training presents specific range requirements, as identified in Table 1.

Table 1: Training Levels and Range Requirements

Level of Training	Training Environment and Range Requirements
Individual Warfighting Skills	• programmed instruction • fixed ranges / individual movement areas / Special Use Airspace (SUA) • specialized ranges such as small Military Operations in

[1] Marine Corps forces are organized, trained, and equipped to deploy as MAGTFs. *Marine Corps Vision and Strategy 2025* states "Operational effectiveness of the Corps is founded upon the MAGTF construct." The MAGTF is a scalable, task organized force consisting of the following elements: Ground Combat Element, Aviation Combat Element, Logistics Combat Element, and Command Element. The size and composition of a MAGTF depends on its mission. The Marine Expeditionary Force (MEF) is the largest MAGTF. The Marine Expeditionary Brigade (MEB) is a large-scale MAGTF, smaller than a MEF, while a Marine Expeditionary unit (MEU) is the smallest standing MAGTF. Special task-organized MAGTFs can be built as missions and requirements dictate, to include training and exercises.

[2] Presently, there is no recurring requirement for training exercises employing all forces of the MEF in live-fire events (although large exercises engaging key command and control functions of the MEF and its subordinate units are required). There is a training requirement for MEUs and MEBs to conduct full-scale, live-fire, pre-deployment exercises.

Level of Training	Training Environment and Range Requirements
	Urban Terrain (MOUT) facilities
Unit Training (smaller units)	• scenario-based training • fixed ranges / fire and movement ranges / small maneuver areas / SUA • specialized ranges such as small MOUT facilities
Unit Training (larger units/MAGTF elements)	• dynamic decision-making in event driven training exercises • fire and maneuver ranges / large maneuver areas / SUA • specialized ranges such as large MOUT facilities
MEU Training	• fully integrated, multi-dimensional training • extended fire and maneuver areas for multi-day training events • extensive SUA • specialized ranges such as large MOUT facilities
Large-scale MAGTF / MEB Training	• fully integrated, multi-dimensional training • extended fire and maneuver areas for multi-day training events • extensive SUA • specialized ranges such as very large MOUT facilities

Identifying Marine Corps operational range requirements is an inherently dynamic process, in that range requirements depend on training needs determined by changing operational requirements. Of immediate concern, Marine Corps ranges must support training cycles necessary to prepare individual Marines and Marine Corps units for current wartime deployments. Moreover, range capabilities must be continuously enhanced to support current, emerging, and future training requirements with modern ranges relevant to the full spectrum of conflict.

Several factors affect operational range requirements, both Service-wide and at a particular installation, including:

- Developing operational doctrine;
- Evolution of tactics, techniques, and procedures;
- Fielding of new weapons and systems;
- Evolving missions of the training ranges; and
- Training load (throughput).

As established in the Sea Services' joint *Naval Transformation Roadmap 2003: Assured Access and Power Projection From the Sea*, "operational changes, first expressed as concepts, will alter the means by which [Marine Corps] forces project power and influence [and] leap-ahead technologies will create new opportunities for the warriors of tomorrow" (page 84). Emerging operating doctrine, the fielding of weapons, systems, and platforms to execute that doctrine, and the associated evolution of tactical procedures employed by Marines and MAGTFs all affect range requirements.

Moreover, the operational ranges must have the capacity to support the training throughput required for force generation. The Marine Corps' approach to force generation has changed since the beginning of the Global War on Terrorism (GWOT), with the establishment of a "block" approach to pre-deployment training. This model calls for the Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC) in Twenty-nine Palms, California to serve primarily as the Service-level range for capstone pre-deployment training exercises. This is further emphasized by the Commandant in *Marine Corps Vision and Strategy 2025* "...we will enhance live-fire combined arms training capabilities at Marine Corps Air Ground Combat Center Twenty-nine Palms, California. These facilities must be capable of supporting large-scale scenarios and combined arms exercises..." As the premiere live-fire and maneuver range in the Marine Corps inventory, MCAGCC/MAGTFTC is uniquely suited to this role. Significant recent investments, particularly the construction of several facilities for training in MOUT, and the ongoing development of a large combined arms MOUT facility, have enhanced the capabilities of MCAGCC/MAGTFTC as the Service-level range for the Marine Corps.

The block training approach calls for other major operational ranges to support increased unit-level training

for home station units, in preparation for capstone events held at MCAGCC/MAGTFTC. MCAGCC/MAGTFTC continues to support unit-level "work up" events for units engaged in capstone training, although as the range capabilities of major training bases such as Camp Lejeune and Camp Pendleton are enhanced, these bases increasingly provide the primary venue for unit-level training. Increases in the size of the active component of the Marine Corps will increase the demand for mission-capable ranges at the installations where those forces are stationed.

1.2 Airspace for Military Operations

This Report addresses current and future land requirements of Marine Corps operational ranges, and the investment strategies to accommodate those requirements. It is important to note, however, that airspace for military operations is a critical component of the range capability necessary to train the MAGTF. A three-dimensional training environment is necessary for live-fire training of the Ground Combat Element of the MAGTF (employing high-angle weapons systems such as artillery and mortars) and for all aviation training activities. Airspace for military operations, particularly Special Use Airspace (SUA), must be considered in describing and defining the required operational range and training environment. In addition, feasibility of airspace establishment is a key component of any initiative to increase the capabilities of Marine Corps ranges through land acquisition.

Airspace for military operations is a finite resource that is subject to increasing demands of the commercial and civil aviation communities. Pressure on military airspace is likely to increase as escalating fuel costs lead to requests for routing commercial flights through, rather than around, military airspace. The future will see even greater challenges to military training airspace as increases in general aviation traffic, civil unmanned aircraft systems, and commercial aviation, and Very Light Jet operations place pressure on military use of airspace. At the same time, enhanced capabilities and extended ranges of new military aircraft and weapons systems require extended airspace for training.

Diligent management of military airspace is critical to the sustainment of safe, realistic training environments. Coordinated efforts are ongoing at the installation, regional, and Service levels not only to sustain existing training airspace, but to determine the feasibility of

establishing additional airspace in support of current and future training requirements. Proposals for additional airspace establishment supporting Marine Corps range complexes are at varying stages of analysis. While this Report does not call for detailed discussion of the requirements for military access to additional airspace, specifically SUA, it is important to note that airspace deficits exist, and any discussion of the potential for land acquisition must consider the parallel requirement for additional supporting airspace.

1.3 Operational Range Descriptions

The Marine Corps relies on its portfolio of ranges to accomplish training at all levels of the training and education continuum. Marine Corps range infrastructure includes 14 operational ranges at the following installations:

Major Operational Ranges

- MCAGCC/MAGTFTC Twenty-nine Palms
- Marine Corps Base (MCB) Camp Pendleton
- MCB Camp Lejeune
- Marine Corps Air Station (MCAS) Cherry Point
- MCAS Yuma
- MCB Hawaii
- MCB Camp Butler, Okinawa
- MCAS Beaufort (Townsend Bombing Range)
- MCB Quantico

Other Installations with Ranges

- Marine Corps Recruit Depot (MCRD) Parris Island
- MCAS Miramar
- Marine Corps Logistics Base (MCLB) Albany
- MCLB Barstow
- Marine Corps Mountain Warfare Training Center (MCMWTC) Bridgeport

Detailed descriptions of these operational ranges are provided in Appendix B.

2 PROJECTED CHANGES IN OPERATIONAL RANGE REQUIREMENTS

"(2) A description of the projected changes in Marine Corps operational range requirements, including the size, characteristics, and attributes for mission-essential activities at each range and the extent to which any changes in requirements are a result of the proposal contained in the fiscal year 2008 budget request to increase the size of the active component of the Marine Corps to 202,000 personnel by the end of fiscal year 2012 and any modification or acceleration contemplated in the budget submission for fiscal year 2009."

2.1 Range-Specific Planning: Deliberate Planning and Emerging Requirements

The Mission Capable Ranges program implements detailed planning processes for determining range requirements, resource shortfalls, and investment priorities. In summary, range planning entails: (1) identification of current and future training requirements; (2) analysis of existing capabilities at each of the Marine Corps ranges; (3) assessment of the extent to which range capabilities adequately support required training; and (4) identification of gaps between range requirements and range capabilities. This analysis supports investment planning to address existing and projected range shortfalls.

One foundation of the Mission Capable Ranges Initiative is the *Marine Corps Training Ranges Required Capabilities Document* of June 2006. The *Required Capabilities Document* describes training land, airspace, and required range facilities necessary to execute four levels of the training continuum: (1) individual Marine, (2) unit-level (up to battalion), (3) Marine Expeditionary Unit (MEU); and (4) Marine Expeditionary Brigade (MEB). The *Required Capabilities Document* identifies requirements without regard to availability of training land or airspace; it focuses on the capabilities required to train the mission essential tasks of modern expeditionary maneuver warfare assuming a hypothetical, unconstrained training environment. The *Required Capabilities Document* provides objectives for use by range managers at each operational range to conduct installation-specific range planning, including development of cornerstone Range Complex Management Plans.

Assessing the adequacy of Marine Corps training resources is an ongoing process involving multiple variables, including range capability, range capacity, range location, and access (relative to other range resources). The process is complex, in that assessment metrics for these variables are only just emerging (as with the Marine Corps' encroachment studies), or may be quite difficult to develop. Installation-specific Range Complex Management Plans are the primary vehicle for analysis of these variables, and include detailed range inventories, assessments of required range capabilities based on the *Required Capabilities Document*, and an assessment of deficiencies identified in the "gaps" between existing range inventories and required capabilities.

The Marine Corps has initiated or completed Range Complex Management Plans for the following installations:

- Marine Corps Base (MCB) Camp Lejeune
- MCB Camp Pendleton
- Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC) Twenty-nine Palms
- Marine Corps Air Station (MCAS) Yuma
- MCB Hawaii
- MCAS Cherry Point
- MCB Quantico
- Marine Corps Mountain Warfare Training Center (MCMWTC) Bridgeport

Additionally, the Marine Corps is assessing what additional range planning would best serve Camp Butler, Okinawa, in coordination with ongoing studies regarding relocation of Marine Corps forces from Okinawa to Guam.

Range Complex Management Plans identify present and projected future range requirements including size, characteristics, and range attributes for mission essential activities at each range. The analysis contained in the Range Complex Management Plans provides the basis for Service-level programming of range modernization projects.

Lessons learned in the course of operations in Iraq and Afghanistan, and pre-deployment training for those operations, have led to validation of some range requirements identified in the Range Complex Management

Plans and to development of new range requirements. These include urban training complexes, convoy operations courses, counter-IED (improvised explosive device) training resources, improved targets and threat systems, a mountain operations training capability, and the general upgrade of outdated range infrastructure to meet the increased throughput demands of combat deployments.

To address range requirements, since 2004 the Marine Corps has invested (or is in the process of investing) nearly $500 million in its ranges. (The Marine Corps range investment program is discussed in Section 4 of this Report.) These investments have significantly enhanced the capability of Marine Corps operational ranges to accomplish their missions.

2.2 Projected Range Requirements: Service-Level Priorities

There are, however, some requirements that should be selectively addressed since they represent major deficits in the Marine Corps' ability to train to the many missions that it faces. Continued analysis and the fielding of new systems may cause other requirements to surface in the future, but today the projected operational range requirements at the Service level focus on three deficiencies/changes to operational range requirements across the Marine Corps.

(1) The inability of Marine Corps ranges to fully exercise a large Marine Air Ground Task Force (MAGTF) in a realistic, doctrinally appropriate training scenario. As discussed in detail in Section 6, the premiere MAGTF training range at MCAGCC/MAGTFTC, Twenty-nine Palms, cannot accommodate a full-scale, live-fire MEB exercise.

(2) The need for an aviation training range on the east coast of the United States with range capabilities such as those provided by MCAS Yuma on the west coast. See paragraphs 3.2 and 4.4. A preliminary study of Townsend bombing range is underway to assess its capabilities to address these aviation range training deficiencies.

(3) Inadequate training opportunities for the Marine units stationed in the western Pacific and Hawaii. (The initiative to relocate units from Okinawa to Guam, and develop training ranges and infrastructure on Guam and

selected islands of the Commonwealth of the Northern Mariana Islands, may help alleviate training-related deficits experienced by Marines stationed in Okinawa and Hawaii. Ongoing discussions with the Joint Guam Program Office include analysis of range and training area requirements to support the projected force laydown. The Marine Corps anticipates that there will be sufficient ranges and training areas in the Marianas to support relocating and transient forces.

2.3 Projected Range Requirements and the Proposed Increase in the Active Duty Force

Over the past decade the Marine Corps has increasingly recognized that transforming its installations and ranges is essential to aligning its infrastructure to support forces, weapon systems, doctrine, and tactics for the foreseeable future. Accordingly, the Marine Corps is aggressively executing a range modernization program the scope of which is unprecedented. Deficiencies in Marine Corps range inventory are of two types: inadequate range capabilities leading to substandard training opportunities, and lack of range capacity leading to loss of training opportunities or reliance on alternative training sites (such as other Services' ranges). The Mission Capable Ranges Initiative is directed at both types of deficits through capability enhancements and establishment of additional capacity through development of new ranges.

The primary effect of the proposal to increase the size of the active duty force is on the capacity of installations to provide sufficient range time for all forces. Major training installations are busy places, utilized nearly every day of the year for training. Camp Pendleton and Camp Lejeune, for example, execute between 200-250 training events per day, on average. The addition of new forces increases demand for ranges that are already heavily utilized. Marine Corps budget planning takes these additional requirements into account, in the context of its overarching range modernization initiatives. Presently, therefore, the Marine Corps does not contemplate requesting modification or acceleration of the requests contained in the budget submission for fiscal year 2009.

3 PROJECTED DEFICIT OR SURPLUS OF LAND AT MARINE CORPS OPERATIONAL RANGES

"(3) The projected deficit or surplus of land at each major Marine Corps operational range, and a description of the Secretary's plan to address that projected deficit or surplus of land as well as the upgrade of range attributes at each existing Marine Corps operational range."

3.1 Constraints on Training Uses of Marine Corps Lands

The mission of Marine Corps operational ranges is to provide the land, airspace, and range resources required to train Marines, Marine units, and Marine Air Ground Task Forces (MAGTFs). Each major training installation contains a suite of maneuver areas and fixed ranges of varying complexity, generally including small-arms ranges with fixed firing points, multi-purpose live-fire and maneuver areas (LFAMs), large non-live fire maneuver training lands, and specialized ranges such as facilities for conducting military operations in urban terrain (MOUT). In order to accomplish their respective missions, Marine Corps installations are managed to maximize efficient use of training land and resources.

However, not all the land of the operational ranges is, or can be, devoted to training. As with most other types of land use, the use of military land for training is subject to constraints from multiple sources. These include:

- Safety measures implemented in siting and use of live-fire ranges, which require establishment of surface danger zones and may require establishment of off-limits impact areas.
- Other military land uses, such as billeting and family housing; motor pools, maintenance facilities, and equipment warehouses; airfields and hangars; office buildings; dining facilities; and commissaries and exchanges.
- Natural and cultural resources management planning and practices, such as requirements for stewardship of wildlife habitat, water resources, wetlands, or culturally significant properties.
- Terrain constraints such as those presented by hills or mountains that minimize or prevent maneuver by military vehicles.

Moreover, land uses external to an operational range often create impediments to use of military land for training purposes. Encroachment by incompatible development into the vicinity of Marine Corps installations, operational ranges, and training areas can create resource (land, air, water, frequency spectrum) uses that are incompatible with current and future military training and general mission activities.

To illustrate these land use considerations, Figure 1 depicts the location and distribution of internal constraints on uses of military land for training purposes at Marine Corps Base (MCB) Camp Pendleton, as well as external land uses contiguous to the base. MCB Camp Pendleton is one of the Marine Corps' most important and capable training ranges.

In summary, while major operational ranges encompass quite extensive areas, the size of an installation is not an accurate indicator of the amount or adequacy of training land available to accomplish the installation's primary mission.

3.2 Projected Deficit or Surplus of Land

No operational range in the Marine Corps inventory currently includes or is projected to include surplus land.

Deficits in available training land currently exist at the following operational ranges:

- **Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC), Twenty-nine Palms:** MCAGCC/MAGTFTC is the Marine Corps' largest and most capable training installation. As discussed in detail in Section 6, notwithstanding its size and substantial range resources, it lacks sufficient training land to support required training, including a doctrinally realistic live-fire Marine Expeditionary Brigade (MEB) exercise.
- **MCB Camp Pendleton and MCB Camp Lejeune:** Camp Pendleton and Camp Lejeune are the most capable amphibious training bases in the Marine Corps range inventory. Both installations contain ranges and training areas capable of supporting formal schools including the Schools of Infantry located at each installation, and support all individual and unit-level training events for assigned operational forces. Camp Pendleton and Camp Lejeune also have the

capability to support amphibious landing exercises and Marine Expeditionary Unit (MEU) training of limited scope and duration. Neither installation contains sufficient training land to support extended, MEU-level live-fire training exercises, and neither can support live-fire training exercises of the MEB.

- **Marine Corps Air Station (MCAS) Cherry Point and MCAS Beaufort/Townsend Bombing Range:** The ranges of these two air stations, located on the east coast of the United States, lack sufficient land resources to meet training and readiness requirements for delivery of aviation ordnance against ground targets. As discussed in detail in Section 4, lack of a capable east coast aviation training range is a significant concern to the Marine Corps. The feasibility of seeking expansion of Townsend Bombing Range, Georgia (managed by MCAS Beaufort) is under preliminary consideration to address this shortfall, but likely would provide only a partial solution.

- **MCAS Yuma:** MCAS Yuma, including the Barry M. Goldwater Range (West) is the Marine Corps' largest and most capable aviation training range. The Marine Corps has not identified a deficit in training land at this installation. However, shortcomings in other aviation training ranges such as MCAS Cherry Point and MCAS Beaufort are increasing the training load on Yuma's ranges as east coast aviation squadrons deploy there to accomplish training that cannot be conducted at or near their home stations.

- **MCB Camp Butler, Okinawa and MCB Hawaii:** These installations are the home stations for all units of III Marine Expeditionary Force (III MEF). Both lack sufficient training land and ranges to accomplish most unit-level training requirements, and have limited capability to support individual live-fire training. As discussed in further detail in Section 4, lack of training opportunities for Marine units stationed in the western Pacific is a significant concern.

3.3 Addressing Projected Deficits of Land

Section 2 of this Report provides detailed information about Marine Corps range planning processes. In particular, paragraph 4.3 discusses the types of investments being made to upgrade range attributes throughout the Marine Corps and paragraph 5.1 addresses the utilization of other Service and international ranges to satisfy training requirements.

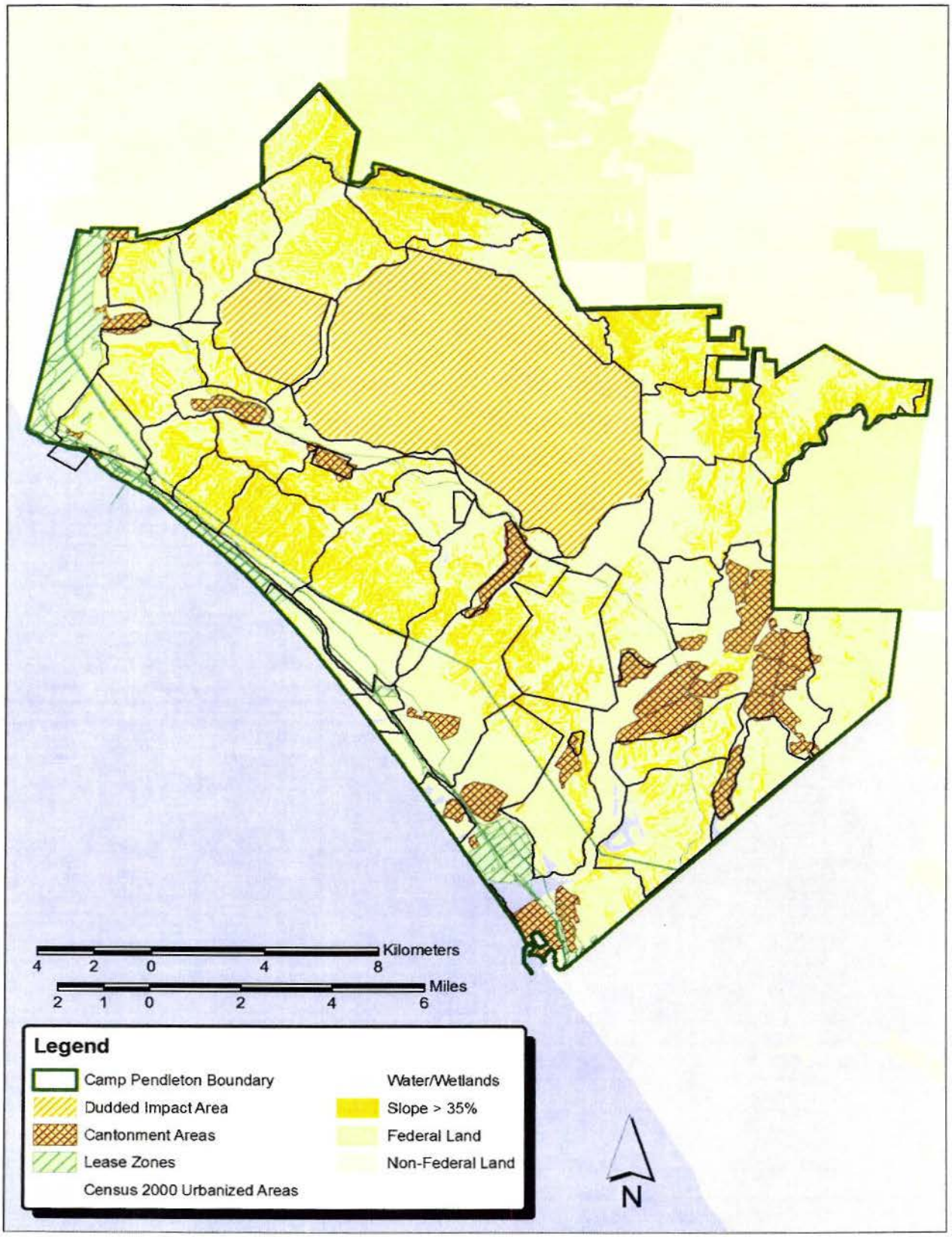


Figure 1: Land Use On and Contiguous to Camp Pendleton

This page intentionally left blank.

4 PRIORITIZATION PROCESS AND INVESTMENT STRATEGY

"(4) A description of the Secretary's prioritization process and investment strategy to address the potential expansion or upgrade of Marine Corps operational ranges."

In 2001 the Marine Corps activated the Range & Training Area Management Division in the Training & Education Command. This action acknowledged both the importance of training infrastructure and the ineffectiveness of decades of decentralized management. The Range and Training Area Management Division's charter was to produce a vision, a process, and a program to modernize and upgrade Marine Corps training ranges. This charter was subsequently expanded to appoint Marine Corps Combat Development Command as the Marine Corps' executive agent for ranges, with the Range and Training Area Management Division acting as the single sponsor to build a single, integrated range investment program for the Marine Corps. These actions, supported by targeted and supplemental appropriations of the Congress, have resulted in the largest investment program in Marine Corps training ranges since World War II. The Secretary of the Navy approves, endorses, and supports the Marine Corps range investment strategy through the programming and budgeting oversight provided by the Department of the Navy Comptroller.

4.1 The Vision

The Marine Corps Mission-Capable Ranges Initiative integrates Marine Corps programs supporting safe, realistic combat readiness training. The correlation between realistic training and combat readiness is absolute, yet the capability to "train as we fight" is constantly challenged by external encroachment and internal resource limitations. Increasing urbanization, environmental restrictions, and aging infrastructure combine to limit the use of training lands, while new weapons systems and warfighting techniques require greater resource allocation and larger training areas. The response to this challenge is the vision for mission-capable ranges. The vision includes ranges, airspace, and training areas that incorporate improved instrumentation, enhanced feedback, and target systems that support training at all levels from the individual Marine up to the most capable Marine Air Ground Task Force (MAGTF). Realization of this vision requires the appropriate balance of realistic, effective

training and environmental stewardship. Achieving the vision also requires a commitment of resources for investments in ranges and training infrastructure; to include range instrumentation, target systems, and simulation technologies. The investment of today's resources will ensure tomorrow's success on the battlefield. Guiding the achievement of the vision are six cornerstone planning objectives that fully support the modernization of ranges, airspace, and training areas. The six cornerstone objectives, which support the Marine Corps prioritization process and investment strategy, define its efforts to:

- Preserve & Enhance Live Fire Combined Arms Training. Live fire training consistently produces the greatest realism and stress that Marines receive in preparation for combat. The ability to employ weapon systems and tactics in the most realistic manner possible is critical to combat effectiveness. Major range complexes must have the ground and airspace available to adequately test and train using combined arms in both Urban Warfare (including Stability Operations and Counter Insurgency) and extended maneuver environments that employ all the weapons of the MAGTFs. While making the best use of the resources available, the Marine Corps must also be open to selectively exploring opportunities for training land acquisition and airspace establishment.

- Recapture Littoral Training Capabilities. Camp Lejeune, North Carolina and Camp Pendleton, California were designed to be the premier littoral training locations in the United States. Years of coastal urbanization and environmental constraints have combined to seriously limit their ability to support training from the sea to the shore and ashore. While there is little prospect for expanding either of these bases, the Marine Corps must attempt to preserve and enhance their ability to support critical littoral training missions through aggressive environmental stewardship programs, outreach to local communities, and intelligent long-term installation planning.

- Leverage Technology; Provide Feedback for Better Training. The Marine Corps has invested and will continue to invest in instrumentation, feedback systems, and targets by utilizing the latest in commercial off the shelf technology. The Marine Corps

is capitalizing on improvements to its range systems by leveraging technology currently fielded by other Services. Additionally, the Marine Corps is a staunch advocate for Joint systems, which will serve to drive down research, development, test, and evaluation and acquisition costs.

- Mitigate Encroachment. Mitigation of encroachment on ranges, training areas, airspace and water at all Marine Corps training bases is a necessity. The Marine Corps is involved at all levels with Federal, state, and local government agencies and non-governmental organizations to seek ecosystem consultations that provide solutions to encroachment pressures. The Marine Corps is, and will continue to be, a conscientious caretaker of the lands, airspace and water entrusted to it. Marines work diligently toward the protection of natural and cultural resources, striving always to maintain a balance between support for the military mission while simultaneously promoting the sustainability of the environment in compliance with applicable laws and regulations.

- Facilitate Cross-Service Utilization. Inter-Service communication and coordination is vital to cohesiveness of the Armed Forces. In order to accomplish this, the Marine Corps will continue to forge strong relationships with those units and commands who currently utilize or who may wish to utilize Marine Corps ranges. At the same time, the Marine Corps is concerned that it lacks the training infrastructure to meet all of its own training requirements, and therefore relies on access to a portfolio of ranges including those of other Services and other countries. The Marine Corps must continue to work with Federal, state, and local agencies to protect installations and to optimize the availability of its ranges for training. Similarly, the Marine Corps must support other Services in their efforts to retain access to their own valuable training lands.

- Support the Joint National Training Capability. The Marine Corps has and will continue to attain certification of ranges and accreditation of exercises to strengthen the Joint National Training Capability and the Marine Corps' role as a participant.

4.2 The Process

These six cornerstone objectives have been applied to, (1) the Marine Corps' assessment of existing capabilities at each of its ranges, (2) identification and assessment of gaps between requirements and capabilities, and (3) the prioritization process which addresses projected shortfalls to be overcome in order to meet current and future training resource requirements. This assessment process, which relies on the *Marine Corps Training Ranges Required Capabilities Document* of June 2006 and installation level Range Complex Management Plans, is discussed above in Section 2.1. Shortfalls, deficits, and surpluses are analyzed, assessed and prioritized during the development of each installation's Range Complex Management Plan, which collectively provide the basis for programming modernization projects in accordance with the six cornerstone objectives discussed above.

4.3 The Program

The Range Modernization/Transformation Program began receiving funding in FY2004 and became a "program of record" in FY2006. This program is sponsored by the Range and Training Area Management Division of Marine Corps Combat Development Command. It competes in the Training Program Evaluation Board process for resources and is supported and executed by the Program Manager, Training Systems, a subordinate element of the Marine Corps Systems Command. Since 2004, the Range Modernization/Transformation Program has invested (or is in the process of investing) nearly $500 million in Marine Corps ranges. Most of these investments have been to meet emerging operational range requirements stemming from combat operations in Iraq and Afghanistan. In particular, the Marine Corps has made substantial investments in urban training complexes (See Figures 2-4). Other critical enhancements have included convoy operations courses, counter-IED (improvised explosive device) training resources, improved targetry and threat systems, and the general upgrade of outdated range infrastructure to meet the increased throughput demands of combat deployments have been the largest recipients of funding. Limited instrumentation in urban training systems has also begun to be fielded to produce better training feedback in an environment where Marines are faced with critical escalation of force decisions.





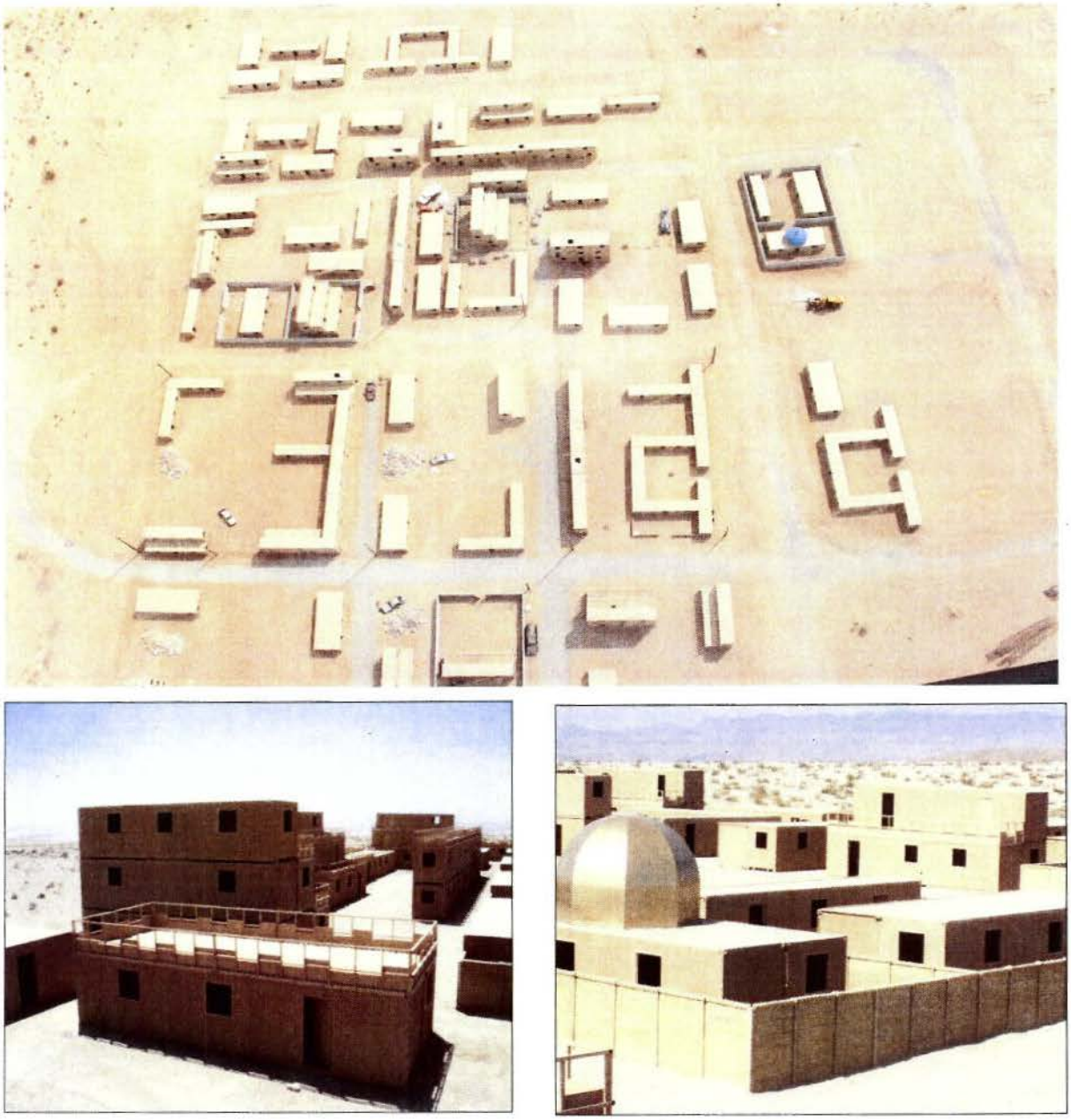


Figure 4: New MOUT Facilities at MCAGCC/MAGTFTC, Twenty-nine Palms

4.4 The Future

Consistent with the both the vision and the process in place, the Marine Corps continues to assess and evaluate gaps and requirements at both the local installation and Service levels. In Section 3 of this Report the significant deficits in land and airspace that the Marine Corps faces are made readily apparent. Geographical and fiscal constraints will preclude the Marine Corps from addressing all of those shortfalls and it will continue to rely on the resources it has and access to other Service ranges to meet most of the Marine Corps training needs. Although all shortfalls cannot be addressed there are some requirements that should be highlighted because they represent major deficits in the Marine Corps' ability to train to the many missions that it faces. Continued analysis and the fielding of new systems may cause other requirements to surface in the future, but today the largest gaps in training capability include:

- The inability to exercise a large-scale MAGTF in a "live" training scenario. The reach of modern weapon systems and tactical doctrine require a much larger land and airspace area than the Marine Corps currently has available. Only Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC) at Twenty-nine Palms, California comes close but given its many other missions and its limited size relative to the area required for Marine Expeditionary Brigade (MEB) training, it cannot fully accommodate a brigade (MEB) size unit. Section 6 of this Report addresses the substantial military value that could be realized by land acquisition and airspace establishment at Twenty-nine Palms, which is currently under active consideration.

- The lack of a capable east coast aviation training range to accommodate the increased airspace and weapons requirements of precision guided munitions and the joint strike fighter. While MCAS Yuma is a highly capable range, it already experiences high throughput and is too far from units stationed on the East Coast to effectively meet their recurring training needs. This issue is under preliminary study.

- The inadequate training opportunities for the Marine units stationed in the western Pacific. A number of studies and associated planning documents are currently underway supporting the initiative to

relocate units from Okinawa to Guam. These studies will provide the analysis required to create training range infrastructure and capabilities necessary to support Marines slated for relocation to Guam and selected islands of the Commonwealth of the Northern Mariana Islands[3]

[3] Studies and planning documents supporting the relocation of Marine forces to Guam and the Commonwealth of the Northern Mariana Islands include: Defense Policy Review Initiative (DPRI Japan, March 2004); Alliance Transformation and Realignment Report Agreement (ATARA Japan, October 2005); Agreed Implementation Plans (AIP, May 2006); Guam Integrated Military Development Plan (GIMDP, July 2006); USMC Guam Relocation Study (May 2007); Apra Harbor Victor, Uniform and Sierra Wharves Improvement Plan (May 2007); Guam Joint Military Master Plan (draft-ongoing); Mariana Islands Training Concept Study (draft-ongoing); Mariana Islands Range Complex Environmental Impact Statement (EIS)/Overseas EIS (draft-ongoing); Joint Guam Program Office EIS/OEIS (draft-ongoing); Guam Medical Facilities Master Plan (draft-ongoing); Joint Guam Munitions Study (draft-ongoing); Future Marine Corps Pacific Posture Analysis (draft-ongoing); and multiple draft studies addressing communications, utilities, traffic, and family housing infrastructure requirements.

5 ALTERNATIVES TO EXPANSION

"(5) An analysis of alternatives to the expansion of Marine Corps operational ranges, including an assessment of the joint use of operational ranges under the jurisdiction, custody, or control of the Secretary of another military department."

As set forth in Section 3, the Marine Corps is concerned about deficits in training lands. At the same time, it recognizes that, with the exception of the Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC), the potential for expansion of its existing major training bases is severely constrained by surrounding land uses and ownership patterns, among other factors. For installations such as Marine Corps Base (MCB) Camp Pendleton, MCB Camp Lejeune, MCB Camp Butler, and MCB Hawaii, land acquisition, while desirable, is not presently feasible. This Section addresses ways that the Marine Corps addresses land shortfalls given that accession of additional training land to these installations is unlikely. Land acquisition is feasible at MCAGCC/MAGTFTC Twenty-nine Palms, and the potential military value of such expansion is addressed in Section 6. This Section therefore also addresses alternatives to expansion of Twenty-nine Palms.

5.1 Assessment of Joint Use

The Marine Corps requires access to ranges and airspace that are sufficient to support training to standards across the training continuum. The Marine Corps relies on an extensive portfolio of land and airspace resources to accomplish training at all levels of the continuum - from individual through Marine Air Ground Task Force (MAGTF) and Joint training. The major Marine Corps "owned and operated" training ranges comprise a suite of range complexes at the portfolio's core. The Marine Corps also depends on extensive cross-Service utilization and access to non-Marine Corps training lands and airspace. Additionally, the Marine Corps utilizes foreign ranges, non-DoD federal lands (e.g. Bureau of Land Management property), and non-federal lands to conduct training.

Marine Corps access to and use of operational ranges of other Services is critical to its readiness training. The following is a partial list of non-Marine Corps training resources that are used for Marine Corps training:

Fort Bragg, North Carolina (U.S. Army)

Marine Corps artillery and engineer units frequently train at Fort Bragg, including participation in an annual artillery exercise, Rolling Thunder.

Fort A.P. Hill, Virginia (U.S. Army)

Utilized year-round, operations and training at Fort A.P. Hill exercise combat elements of the Camp Lejeune-sourced Marine Expeditionary Units (MEU) Special Operations Capable (SOC) and support other unit-level, live-fire and maneuver training.

Fort Pickett, Virginia (U.S. Army)

The operations and training conducted at Fort Pickett by Marine Corps forces focus on qualification and firing of the armored vehicle and tank assets (i.e. 120 mm tank main gun and 25 mm chain gun training).

Hawthorne Army Depot, Nevada (U.S. Army)

Hawthorne lies in relatively close proximity to the Marine Corps Mountain Warfare Training Center (MCMWTC) located near Bridgeport, California. The Marine Corps has developed arrangements with the Army for use of Hawthorne for individual and small unit training. Additionally, the two Services have partnered to develop Military Operations in Urban Terrain (MOUT) facilities at Hawthorne to support both Marine Corps and Army training.

Pohakuloa Training Area (PTA) and Schofield Training Area, Hawaii (U.S. Army)

Marines of III Marine Expeditionary Force, in particular the 3rd Marine Infantry Regiment, stationed at MCB Hawaii extensively utilize the ranges of the PTA and Schofield. The range capabilities of MCB Hawaii itself are limited to individual and small-unit training, and live-fire training is strictly constrained. Access to PTA and Schofield for live-fire training is critical to the readiness of Hawaii-based Marine Corps units. Therefore, the Marine Corps is partnering with the U.S. Army to enhance training opportunities by resourcing MOUT facilities and other ranges in the PTA for use by Army and Marine Corps forces.

Southern California Range Complex, California (U.S. Navy)

Marine Corps operations and training in the Navy's Southern California Range Complex includes extensive use of the ocean areas for MEU(SOC) and other amphibious training, use of the airspace for air combat training and other aviation

activities, and use of San Clemente Island for training in naval gunfire support, special operations, and small-unit amphibious operations such as raids.

Naval Air Facility (NAF) El Centro, California (U.S. Navy)

Marine Corps aviation units regularly utilize the aerial bombing ranges of NAF El Centro (part of the Bob Stump Training Range Complex).

Cherry Point Range Complex, North Carolina (U.S. Navy)

Marine Corps aviation training regularly is conducted in the Navy's Cherry Point airspace, which lies adjacent to the Marine Corps' Cherry Point airspace and ranges.

Eglin Air Force Base, Florida (U.S. Air Force)

Eglin AFB has provided live-fire training (as an interim alternative training capability to that lost at Vieques) for eastern U.S. Expeditionary Strike Groups (ESG) and their embarked MEU (SOC)s.

Fuji Maneuver Areas (FMA), Camp Fuji, Japan

The FMAs support maneuver and live fire training for units of III Marine Expeditionary Force (MEF), primarily those stationed on Okinawa.

Other Host Nation Ranges

The Marine Corps regularly trains on host-nation lands (e.g. Scotland, Norway, Korea, Denmark, Australia, Thailand, and the Horn of Africa and West Africa).

Use of other Services' and allied nation ranges is critical to Marine Corps unit level training, particularly in the western Pacific, Hawaii, and on the east coast of the United States. Priority of access to these training lands, however, necessarily rests with the forces that the ranges exist to support. All of the operational ranges of sister Services have defined primary missions; supporting training of Marine Corps forces is generally an ancillary mission. Access and scheduling constraints are compounded by the needs of other Services for increasingly greater land areas to conduct required training, and increased use of ranges to meet wartime pre-deployment training requirements.

For these reasons, increased cross-Service utilization is not a practical solution to space constraints at any of the Marine Corps ranges. Land acquisition of other-Service installations, where feasible, would provide benefits to the Marine Corps to the extent such efforts created additional cross-Service range use opportunities. From a

strategic, long-term perspective; establishment of new training installations is within the spectrum of possibility but unlikely as an alternative to expansion of existing Marine Corps bases.

5.2 Alternatives to Expansion

Discussion of alternatives to the expansion of MCAGCC/MAGTFTC must begin with an assessment of the purpose of the proposed land acquisition. As set forth in detail in Section 6, the need for land acquisition and additional airspace establishment at Twenty-nine Palms results from: (1) the requirement to conduct comprehensive MAGTF training exercises at the level of the Marine Expeditionary Brigade (MEB); (2) other Service-level training initiatives; (3) recurring training requirements of operational forces stationed at MCAGCC/MAGTFTC; (4) expected future training requirements of proposed new operational forces to be stationed at MCAGCC/MAGTFTC; and (5) other missions of MCAGCC/MAGTFTC ranges, such as support to allied exercises.

Investigation of existing ranges owned by other Services identified the following obstacles to Marine Corps use of these ranges to meet these purposes:

- Scheduling, priority-of-use, and range loading factors at other Services' ranges, as discussed above in Section 5.1.
- No other installation has live-fire and maneuver areas and contiguous airspace that are sufficiently large to support a realistic Marine Expeditionary Brigade (MEB) combined arms training program.
- No other installation has the supporting infrastructure necessary to accommodate 12-14,000 Marines of a MEB in an expeditionary environment for an extended MAGTF training program.
- No other installation has an expeditionary airfield sufficient to accommodate a MEB Aviation Combat Element in a deployed exercise environment.
- Executing a combined arms training program requires use of extensive equipment resources which must be provided at the exercise site. Establishing equipment pools at other Services' installations (as has been done at MCAGCC/MAGTFTC) is extremely cost prohibitive.
- Reliance on other-Service installations for recurring training requirements of MCAGCC/MAGTFTC's tenant

operational units would require transportation of individual Marines or units over extended distances, for extended periods, resulting in unacceptable personnel tempo demands and training inefficiencies.

- An examination of available training resources conducted by the Center of Naval Analysis (CNA) in 2004 entitled, *Expanded MEB Training Requirements and the Associated Training Environment* confirmed existing training ranges do not fully accommodate MEB or MEF level training. This CNA study analyzed the ability to accommodate those requirements within three separate geographic regions in the continental United States (CONUS), namely Southwest CONUS, Northern Gulf of Mexico, and the mid-Atlantic area, it addressed both Marine owned and non-Marine owned training lands, airspace, and sea space. The CNA study determined that while all three regions could accommodate some portion of MEB-level training, none accommodated all MEB training requirements without access to additional lands and airspace outside of their geographic area.

This Page Intentionally Left Blank.

6 EXPANSION OF MARINE CORPS AIR GROUND COMBAT CENTER/MARINE AIR GROUND TASK FORCE TRAINING COMMAND, TWENTYNINE PALMS

"(6) An analysis of the cost of, potential military value of, and potential legal or practical impediments to, the expansion of Marine Corps Base, Twenty-nine Palms, California, through the acquisition of additional land adjacent to or in the vicinity of that installation that is under the control of the Bureau of Land Management."

6.1 Potential Military Value of Expanding Land and Airspace of the Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC), Twenty-nine Palms

Over the past five decades, Twenty-nine Palms has been transformed from what General Louis Wilson, the Marine Corps' 26th Commandant, once termed "a sleepy little artillery base" to the premier live-fire, combined arms, training facility within the Department of Defense. Today, the Combat Center, as headquarters to the Marine Air Ground Task Force Training Command (MAGTFTC), provides (1) the principal venue for advanced, Service-level core capability/core competency training, Service-level live-fire/fire and maneuver ranges, and training for deploying Marine Corps forces; (2) the center of excellence for developing and executing combined arms live-fire training of the Marine Air Ground Task Force (MAGTF); and (3) multiple ranges replicating the urban environment. Additionally, Twenty-nine Palms is home station to ground combat, aviation, and logistics units. The development of this premiere training installation has been driven primarily by the need to support the evolving training requirements of the MAGTF resulting from new doctrine, tactics, weapons systems, and missions. These have steadily expanded the operational pace and required maneuver space of modern warfare.

From the time the range was established by the Marine Corps in the early 1950s to the present, the size of the range has remained constant, while the nature and scope of training missions has undergone significant transformation to meet the requirements of the Marine Corps and the Nation. Section 6.2 presents a chronological perspective on the expanding mission of Twenty-nine Palms. Today, this once "sleepy little artillery base" delivers a unique

capability to support a broad spectrum of live-fire training events, and often is called upon to support multiple events simultaneously. MCAGCC/MAGTFTC manages and controls its ranges to maximize their training value, making the most efficient use possible of available range resources.

During a typical training day, MCAGCC/MAGTFTC supports multiple, simultaneous combined arms events ranging from individual unit events to MAGTF combined arms exercises. The cumulative result is the training of 35-40,000 Marines per year. To illustrate, Figure 5 depicts a moment in time on a typical training day at MCAGCC/MAGTFTC. (This is an actual, not a notional, training day, depicting regularly conducted live-fire training, on 15 May 2008 in this example, according to range control records.) On this date, four major training events occurred simultaneously:

(1) formal Joint Tactical Control training involving rotary and fixed wing delivered ordnance is being conducted in the western portion of the range;

(2) urban warfare with supporting live fire convoy operations is being conducted in the central portion of the range;

(3) Light Armored Vehicles from a tenant unit are practicing live fire operations on an established scored range; and

(4) A battalion-sized deliberate infantry assault involving live fire and maneuver with rotary and fixed wing support is being executed in the eastern portion of the range.

As this snapshot demonstrates, MCAGCC/MAGTFTC is a very busy training range that is utilized to its full present capacity (see Figure 5).

MCAGCC/MAGTFTC now lacks sufficient land and airspace to conduct required training. Deficits in training space affect the capability of the range to support critical events, particularly large-scale MAGTF training. Expansion of MCAGCC/MAGTFTC also is essential to establishing greater capacity to support the cumulative footprint associated with accommodating multiple, simultaneous combined arms events of varying dimensions, the throughput required by force generation imperatives, recurring training of tenant units, and training requirements of several other range users.

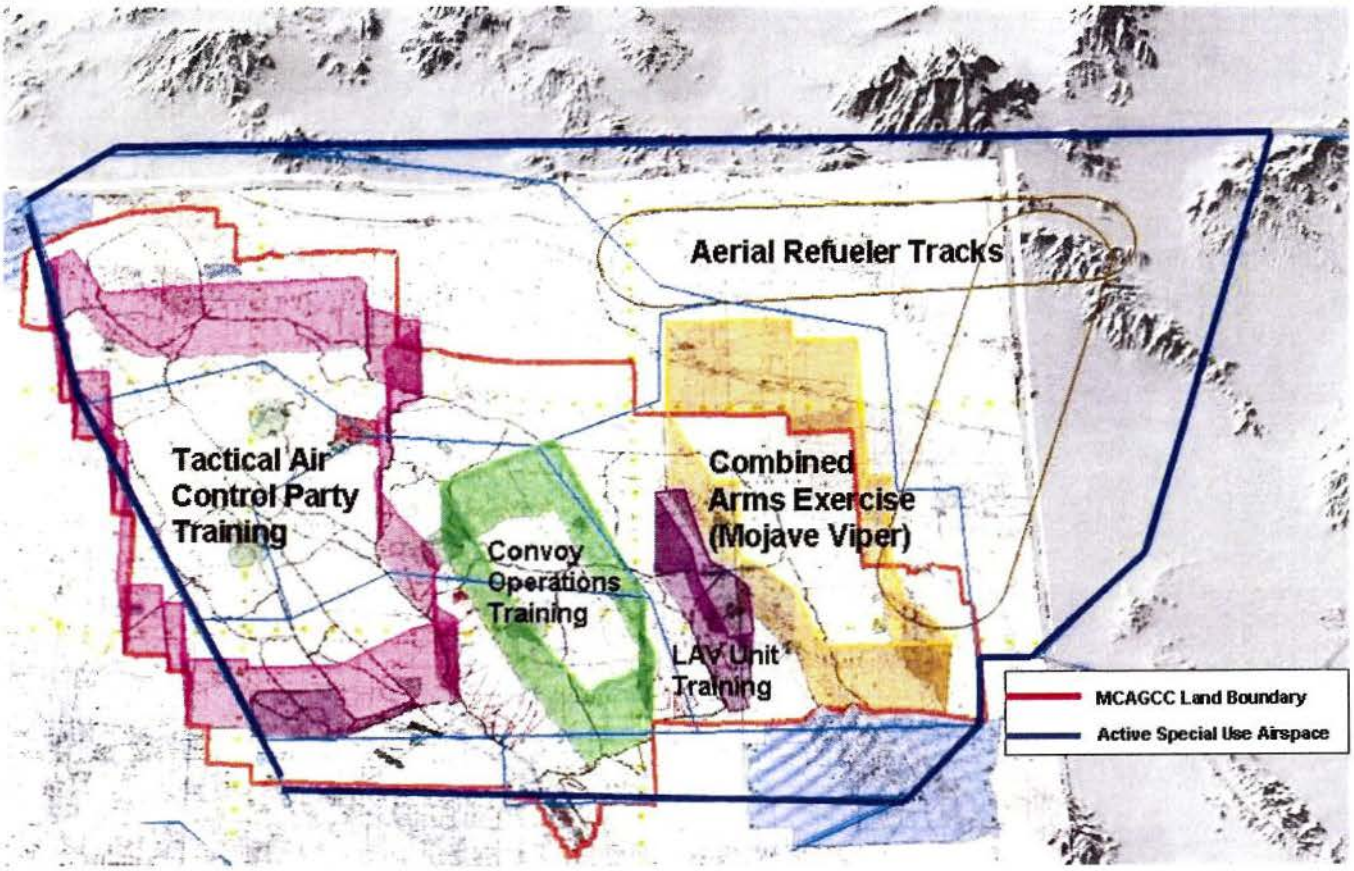


Figure 5: Multiple, Simultaneous Training Events at MCAGCC/MAGTFTC

Land acquisition and airspace establishment at MCAGCC/MAGTFTC would substantially enhance both the capability and capacity of the range to conduct required, doctrinally appropriate training by providing the following range capabilities:

- Sufficient range area and airspace for execution of live-fire combined arms exercises employing a MAGTF up to the size of the most capable Marine Expeditionary Brigade (MEB) as the exercise force in a multi-day capstone training event. The range requirements for this large-scale exercise program include:
    - Live-fire and maneuver areas of sufficient size and appropriate configuration for the Ground Combat Element of the MAGTF to simultaneously deploy and maneuver three battalions (to include armored and mechanized battalions) in continuous live-fire offensive operations over a multi-day period.

- Sufficient airspace and an adequately resourced Expeditionary Air Field(s) for the Aviation Combat Element of the MAGTF to safely maneuver to deliver deep and close fires in a doctrinally appropriate battlespace.
- Land area sufficient to provide the Logistics Combat Element of the MAGTF with the opportunity to conduct sustained tactical logistical operations (including convoy and rear-area operations) over extended distances in the context of a multi-day live-fire exercise.
- Extended battlespace to exercise the Command Element of the MAGTF in a realistic operational environment with large forces over an extended time period in a live-fire context.

- Depth of battlespace contiguous to the Combined Arms Military Operations in Urban Terrain (MOUT) facility permitting complex large-scale operations in an urban context.
- Sufficient land area and airspace to host large joint training exercises.
- Ranges, including live-fire and maneuver ranges, for company/battalion-sized forces who comprise the MAGTF exercise forces to conduct live-fire and maneuver pre-exercise "work-up" training, including rehearsal exercises.
- Ranges to support required training at home station of tenant units, which currently include operational forces of the 1st Marine Division, 3d Marine Aircraft Wing, and 1st Marine Logistics Group.
- Ranges and infrastructure to support required training of additional operational forces to be stationed at MCAGCC/MAGTFTC as a result of the fiscal year 2008 "Grow the Force" initiative.
- Ranges to support newly implemented Service-level training initiatives, including transition team training and advanced ground combat unit staff training in combined arms coordination.
- The capability to support other required range events, including allied training, without disrupting MAGTF or unit-level training programs.

Expansion of MCAGCC/MAGTFTC would significantly enhance the ability of the Marine Corps to continue to provide trained Marines, Marine units, and MAGTFs in furtherance of national security objectives.

6.2 Background: The Expanding Mission of Twenty-nine Palms

A brief history of the installation and its expanding mission provides context for the current requirement to expand the land and airspace of Twenty-nine Palms.

6.2.1 World War Two to 1974 - Focus on Artillery Training

- **World War Two:** The U.S. Army and Navy initially used the desert area north of the town of Twenty-nine Palms for aviation training. Later it was used for bombing and gunnery ranges; military use ceased at the end of the war.
- **1952-74:** In 1952, the Marine Corps assumed control of the area, establishing an artillery training range. In 1957, after an extensive building program, the base was officially commissioned as Marine Corps Base, Twenty-nine Palms. The first artillery units arrived in 1953, and continued to be the primary users of the base for the next two decades.

6.2.2 1974-2003 - Development of the Premiere MAGTF Training Base

- **1974:** General Wilson directed the establishment of the Marine Corps Air-Ground Combat Training Center at Twenty-nine Palms and tasked it with the mission "to conduct air-ground combat training in order to exercise and evaluate the combined arms capabilities and readiness of all elements of participating MAGTF units."
- **1975:** Marine Corps combined arms training was initiated with Palm Tree Exercises, initially artillery-centric exercises in employment of supporting arms.
- **1976:** Construction of an Expeditionary Airfield began, completed in 1978.
- **1976-1977:** Additional units of the Fleet Marine Force, including an infantry battalion, tank battalion, and

combat service support element were permanently assigned to the base.

- **1978:** MAGTF training exercises were formally designated as the Combined Arms Exercise (CAX) Program.
- **1979:** The base was re-designated as the Marine Corps Air Ground Combat Center - MCAGCC. An Assault Amphibian Vehicle company was established to support mechanized combined arms training. The first CAX employing a largely mechanized MAGTF was conducted.
- **1979:** To provide a cadre of expertise for training in MAGTF combined arms, the unit now known as the Tactical Training and Exercise Control Group was established.
- **1980:** Expansion of the mission continued with establishment of the headquarters of the 7th Marine Expeditionary Brigade at the base.
- **1983:** The first Light Armored Vehicle Company in the Marine Corps is activated at MCAGCC.
- **1986:** 3rd Light Armored Reconnaissance Battalion (Bn) is activated at MCAGCC.
- **1987:** Two Remotely Piloted Vehicle companies are activated at MCAGCC; re-designated in 1996 as Marine Unmanned Aerial Vehicle Squadron 1 (VMU-1).
- **1988:** A Marine Wing Support Squadron is transferred from Hawaii to MCAGCC to operate the Expeditionary Airfield in support of aviation operations.
- **1989-90:** The 7th Marine Regiment, including the headquarters company and three infantry battalions, relocate from Camp Pendleton to MCAGCC.
- **2000:** The MAGTFTC is activated, formally aligning the range with the Marine Corps Training and Education Command.
- **2000-present:** MAGTFTC and Marine Corps Training and Education Command lead planning efforts for development of a large-scale facility to support training in MOUT. Simultaneously, Training and Education Command leads planning efforts on the Marine Corps' MEB Training Initiative.

- **1978-2003:** MCAGCC/MAGTFTC provides the maneuver space and ranges for 10 CAXs per year (on average) for both active and reserve components, usually employing a battalion-sized maneuver element as the Ground Combat Element. The CAX program undergoes continuous, incremental refinement to enhance the effectiveness of MAGTF training. MCAGCC/MAGTFTC also provides the ranges for individual and unit training of a substantial component (40%) of the 1st Marine Division stationed at Twenty-nine Palms. In addition, the installation supports regional operating forces for large-scale training and exercises such as Desert Firing Exercise (an artillery Regimental live-fire exercise) and Steel Knight (a mechanized battalion-sized live-fire exercise). Also the Expeditionary Warfare Training Group Pacific conducts Joint Tactical Air Control qualification/training (a close air support exercise involving multiple aviation platforms), a Military Occupational Specialty qualifying event. Experimentation events such as Special Purpose MAGTF and Sea Dragon exercises are also conducted at MCAGCC/MAGTFTC.

6.2.3 2003-Present - Posturing for the Future

- **2003:** MCAGCC/MAGTFTC is designated for training events executed as part of the Joint National Training Capability (JNTC), and supports the May 2003 JNTC exercise.
- **2003:** MCAGCC/MAGTFTC substantially revises the CAX format to meet the asymmetric operational environment of the Global War on Terrorism (GWOT), focusing on theater-specific pre-deployment training requirements. The revised exercise ultimately was formalized as "Mojave Viper."
- **2003-2006:** Four unique MOUT facilities are planned and constructed at MCAGCC/MAGTFTC, including two live-fire ranges for training in urban combined arms at the small-unit level, and two non-live fire ranges for training in Stability and Security Operations, and certain counterinsurgency operations.
- **2005:** MCAGCC/MAGTFTC hosts Operation Forging Saber, a 12-day unilateral exercise executed by the Singapore Armed Forces emphasizing precision aerial strike and command and control capabilities.

- **2006:** By Marine Corps directive, all deploying ground combat units are directed to participate in Mojave Viper. Training throughput of MCAGCC/MAGTFTC doubles from pre-war CAX levels. MCAGCC/MAGTFTC continues to provide home station training ranges for tenant forces when not deployed.
- **2007:** Construction is initiated for a 1500 building, large-scale MOUT facility, to be completed in 2009.
- **2007:** The Advisor Training Group is activated at MCAGCC/MAGTFTC to direct training of Transition Teams for deployment; formal multi-week Transition Team training program is initiated.
- **2008:** The Marine Corps Tactics and Operations Group is activated at MCAGCC/MAGTFTC, with the mission of executing an advanced "train-the-trainer" program for key members of Ground Combat Element battalion and regimental staffs.
- **2008 (June):** Five infantry battalions pre-deployed to MCAGCC/MAGTFTC are on deck conducting Mojave Viper training.

6.3 The Combined Arms Exercise Program

6.3.1 "Traditional" CAX

From its beginnings in the Palm Tree Exercise program until 2003, the CAX program has undergone continuous but incremental refinement, while maintaining five essential components:

- Combined Arms Staff Training, which trains maneuver element staffs in combined arms, using simulators.
- Air Support Coordination Exercise, a live-fire event designed to train company and battalion staffs of the Ground Combat Element, and the Aviation Combat Element, in coordinated delivery of aviation fires.
- Fire Support Coordination Exercise, a live-fire event designed to train company and battalion staffs of the Ground Combat Element in coordinated delivery of artillery and mortar fires.
- Unit-level range training, consisting of squad, platoon, and company-level training of the Ground Combat Element in live-fire and maneuver events.

- Final Exercise, a multi-day, live-fire MAGTF exercise, with live-fire and maneuver by multiple maneuver elements in multiple corridors at several elements of the command.
- Combined arms integration from single maneuver elements of a company size, such as a mechanized infantry, helicopter assault company, light armored reconnaissance company, or tank company, through reinforced multiple maneuver element/multiple corridor rehearsals.

The "traditional" CAX centered on integration of capabilities and MAGTF elements for the close battle in a maneuver intensive, symmetric warfare environment, and the Ground Combat Element, which for the typical CAX has been a reinforced infantry battalion, received the most training benefit. Until 2003, the training plan called for conducting ten CAXs per year.

Marine Corps successes in the first Gulf War in 1991, leading the introduction of U.S. forces into Afghanistan in 2001, and again in Operation Iraqi Freedom in 2003 have validated the Marine Corps' doctrinal training philosophy of live-fire combined arms MAGTF integration through CAX.

6.3.2 Mojave Viper

Beginning in 2003, the CAX format was substantially revised to meet the asymmetric training requirements of the GWOT. The revised event, designated Mojave Viper, is a comprehensive mission rehearsal exercise. Each Mojave Viper exercise is a dynamic training event that integrates all weapons systems from small arms to attack aircraft and continues to prepare deploying units for urban operations, Stability and Security Operations, and counter insurgency operations. Presently approximately 35-40,000 Marines participate annually in about 250 separate training events, including multi-day exercises, as part of Mojave Viper.

Based upon combat lessons learned, the training syllabus for deploying units participating in Mojave Viper has continued to be revised. At the same time, the Marine Corps has modified its approach to force generation. Revised and formalized in April 2006, the Pre-deployment Training Program (PTP) now implements block training for all forces deploying to Operation Iraqi Freedom (OIF) or Operation Enduring Freedom (OEF). All deploying ground combat units are required to execute Mojave Viper at MCAGCC/MAGTFTC, and the base has for the first time been

designated as the location of required Service-level pre-deployment training.

The successful development and execution of Mojave Viper further validates the CAX program as the cornerstone of Marine Corps training doctrine. Mojave Viper applies combined arms tactics to a new kind of war, while supplementing that training with emerging warfighting tactics, techniques, and procedures in near-real time. Mojave Viper therefore provides not only a mission rehearsal exercise for immediately deploying forces, but also a model for the future application of core warfighting methods refined over several decades through the CAX program.

6.3.3 Future CAX

The Commandant of the Marine Corps has provided clear planning guidance to the Marine Corps, directing,

> "We cannot narrowly define the conditions for which our military must be ready. . . . Planning and preparedness in the Long War requires a talented, multi-dimensional force that is well trained and educated for employment in all forms of warfare."

Whatever the time, place, or operating conditions, in the future as in the past; combined arms, live-fire training will form the centerpiece of Marine Corps training. The Marine Corps is aggressively developing the Service-level combined arms training exercises of the future. Warfare in the 21st Century demands flexible organizations that apply a mix of combat and non-lethal actions, interagency capabilities and joint warfare, innovative use of airpower, and synchronization of intelligence activities. For rapid integration of these capabilities, no other military formation is more prepared to execute the full range of warfighting tasks than the MAGTF.

The Future CAX will build on the CAX program (including Mojave Viper) to fully exercise all the capabilities of the MAGTF, including advanced weapons systems, new tactics, and emerging expeditionary strike capabilities across the spectrum of conflict. The overarching objective of Marine Corps combined arms training, in the future as in the past, is to ensure it continues to provide the joint force a unique, additive capability the MAGTF – that is much greater than the sum of its parts. The Marine Corps' premiere training range at Twenty-nine Palms will remain the focal point of MAGTF training.

6.3.4 Large-Scale Exercises: MEB Combined Arms Training

The MEB is the Marine Corps' primary contingency response force and is the smallest MAGTF capable of forcible entry operations. The Marine Corps has identified a need for a Service-level range capability with the land area and airspace necessary to conduct full-scale, combined arms, live-fire exercises for a MEB in current and expected future mission scenarios, under conditions that realistically replicate current and expected battlespace conditions.

The ability to conduct MEB training in a MOUT environment is a critical component of such a range capability. Future MAGTF training will take advantage of the 1500-building Combined Arms MOUT complex scheduled for completion in 2009. Presently, however, the installation lacks the ground maneuver area and airspace to conduct doctrinally appropriate MEB exercises. This deficit in training space has been well-documented.

The House Armed Services Committee in connection with the 2009 National Defense Authorization Act, has observed:

> "The committee understands that modern weapons systems being fielded by each of the military services require even larger, more extensive range facilities than the military departments now have at their disposal. . . . The committee is concerned about the future availability of ranges sufficiently large and unencumbered enough for realistic training, and encourages the Secretary of Defense and the Secretaries of the Military Departments to continue to manage existing ranges carefully and to seek creative ways to acquire new training ranges in cooperation with state and local officials."

As noted in the report to Congress titled "*Implementation of the Department of Defense Training Range Comprehensive Plan - Ensuring Training Ranges Support Training Requirements*" (Department of Defense 2004), "the Marine Corps does not have a range capable of supporting MEB-level fire and maneuver combined arms exercises." The Marine Corps has carefully analyzed its need to address this deficiency. A study by the Center for Naval Analysis (CNA) entitled *Expanded MEB Training Requirements and the Associated Training Environment* (CNA 2004) determined that among existing Marine Corps installations, MCAGCC/MAGTFTC is the location most likely to be able to support the land

expansion required to meet existing and future MEB training requirements.

The ongoing evolution of operational doctrine, weapons systems, and tactics drives the requirement to expand the MAGTF training environment at Twenty-nine Palms. This requirement precedes both the current war and pending increases in the size of the active component of the Marine Corps. These developments nevertheless reinforce the need to expand MCAGCC/MAGTFTC to achieve the required capabilities of a Service-level training base.

Large-scale MAGTF training would include Joint training. Doctrinally, operations by the MEB would occur in the context of a Joint naval task force known as an Expeditionary Strike Group (ESG) comprised of naval surface warfare ships, one or more submarines, and amphibious ships with an embarked MEB. Expansion of MCAGCC/MAGTFTC as the site for MEB-level training would allow employment of all the strike capabilities of the ESG, including the MEB, in a joint task force exercise from the sea at doctrinal distances. Expansion would also allow exercises in which the MEB conducted joint or Service-level combined arms training utilizing the Expeditionary Airfield as a forward exercise support base.

Expansion of MCAGCC/MAGTFTC would provide the training capacity for execution of multiple simultaneous or near-simultaneous live-fire events, as necessary to meet deployment throughput or surge demands. Naval doctrine for training and deployment of expeditionary strike forces such as the ESG is contained in the *Fleet Response Training Plan* (FRTP). One objective of the FRTP is to ensure naval forces have the flexibility to surge in response to contingency requirements. Maintaining that operational capability requires range resources capable of supporting surge training requirements including large-scale exercises, while continuing to support programmed training.

6.4 Other Marine Corps Service-Level Training

In addition to MAGTF exercises, MCAGCC/MAGTFTC supports Service-level training programs of the ATG (Military Transition Teams training) and the Marine Corps Tactics and Operations Group (Ground Combat Element advanced commander and staff training). These vital programs, while less extensive than large-scale exercises, nevertheless present a continuing requirement for access to range resources of MCAGCC/MAGTFTC.

6.5 Individual and Unit Level Training Requirements

The CAX program and Mojave Viper have included substantial blocks of unit-level training conducted at MCAGCC/MAGTFTC, such as company-level live-fire combined arms training. Such small unit training of exercise forces will continue in the future. It is important to note, however, that with the support of Congress the Marine Corps aggressively developed the range capabilities of its other training bases, to provide them with the capability to support similar small unit live-fire and maneuver training. Increasingly it is expected that units will achieve levels of unit training at their home stations that had previously been accomplished primarily at MCAGCC/ MAGTFTC.

Unit-level training of exercise forces puts pressure on range resources relied upon by those units that are stationed at MCAGCC/MAGTFTC. In addition to its role as a Service-level range, MCAGCC/MAGTFTC is required to support individual and unit-level training for its tenant commands (including about 40% of the 1st Marine Division). Operational forces stationed at MCAGCC/MAGTFTC include:

- Headquarters, 7th Marine Regiment
- 1st Battalion (Bn), 7th Marines
- 2nd Bn, 7th Marines
- 3rd Bn, 7th Marines
- 3rd Bn, 4th Marines
- 3rd Bn, 11th Marine Artillery Regiment
- 1st Tank Bn
- 3rd Light Armored (LAR) Bn
- Company D, 3rd Assault Amphibian Vehicle (AAV) Bn
- 7th Combat Logistics Bn
- Marine Wing Support Squadron 374
- Marine Unmanned Aerial Vehicle Squadron (VMU) 1

The growth of the force as proposed in the fiscal year 2008 budget request will add the following operational units to the forces stationed at, and required to train on the ranges of, MCAGCC/MAGTFTC:

- Combat Engineer Bn (Headquarters and 3 companies)
- Tank Company

- Bridge Company
- Marine Unmanned Aerial Vehicle Squadron

Expansion of MCAGCC/MAGTFTC would ensure that operational ranges are available to support unit-level training of exercise forces such as those previously mentioned (i.e. Desert Firing Exercise, Steel Knight, etc.) as required, and enhance range access of home station forces.

6.6 Cost of Expanding MCAGCC/MAGTFTC

Based on initial assessments, costs associated with potential land acquisition and establishment of additional Special Use Airspace (SUA) at MCAGCC/MAGTFTC Twenty-nine Palms are currently estimated to be approximately $52 million. (Table 2). The Secretary of the Navy and the Marine Corps believe that the military value gained by expanding MCAGCC/MAGTFTC is worth the expenditure of these resources. Expansion of MCAGCC will require support and legislative action by the Congress.

Table 2: MCAGCC/MAGTFTC Expansion–Estimated Costs*

*cost in millions USD

Fiscal Year ($M)	2008	2009	2010-2013	Total
OMMC	4.705	3.063	4.303	12.071
MCN	0.000	0.000	39.900	39.900
Total	4.705	3.063	44.203	51.971

6.7 Potential Legal or Practical Impediments to Expansion

Possible land acquisition and airspace establishment at Twenty-nine Palms would require extensive analysis of feasibility issues, and of alternative courses of action that might be pursued to achieve the purposes of expansion and needs of the Marine Corps. The National Environmental Policy Act (NEPA) provides the framework for conducting analysis of most potential impacts of any land acquisition and airspace establishment. The Marine Corps is initiating NEPA analysis and associated land use and natural resources planning for the proposed land acquisition, and expects those processes to identify any legal and practical impediments. In general, planning and analysis is expected to focus on urbanization, community development in the vicinity of the installation; public safety; air quality; natural resources, including threatened or endangered species and their habitats; cultural resources; wilderness designations in the vicinity of the installation; tribal

concerns of the Native American community; recreational and other beneficial uses of Bureau of Land Management land in the vicinity of the installation; and the use of airspace in the region. In addition, the Marine Corps notes that the Mojave Desert region supports corridors for utility lines and power generation, and interstate highways and local roads; these land uses will also require analysis.

Throughout the due diligence of our planning efforts to support potential land acquisition and airspace establishment, the Marine Corps is committed to engaging and addressing the concerns of all stakeholders, including local communities, tribes, State and local authorities, regulatory agencies, landowners, land users, and other interested parties.

This page intentionally left blank.

APPENDIX A: SECTION 2829 OF THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2008

This page intentionally left blank.

SECTION 2829 of the NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2008: REPORTS ON ARMY AND MARINE CORPS OPERATIONAL RANGES.

2829.

(a) Report on Utilization and Potential Expansion of Army Operational Ranges- Not later than 180 days after the date of the enactment of this Act, the Secretary of the Army shall submit to the congressional defense committees a report containing an assessment of the Army operational ranges used to support training and range activities of the Army. The report shall include the following information:

(1) The size, description, and mission-essential tasks supported by each Army operational range during fiscal year 2003.

(2) A description of the projected changes in Army operational range requirements, including the size, characteristics, and attributes for mission-essential activities at each Army operational range and the extent to which any changes in requirements are a result of--

(A) decisions made as part of the 2005 round of defense base closure and realignment under the Defense Base Closure and Realignment Act of 1990 (part A of title XXIX of Public Law 101-510; 10 U.S.C. 2687 note);

(B) the conversion of Army brigades to a modular format;

(C) the Integrated Global Presence and Basing Strategy;

(D) the proposal contained in the budget justification materials submitted in support of the Department of Defense budget for fiscal year 2008 to increase the size of the active component of the Army to 547,400 personnel by the end of fiscal year 2012 and any modification or acceleration contemplated in the budget submission for fiscal year 2009; or

(E) high operational tempos or surge requirements.

(3) The projected deficit or surplus of land at each Army operational range, and a description of the Army's plan to address that projected deficit or surplus of land as well as the upgrade of range attributes at each existing Army operational range.

(4) A description of the Army's prioritization process and investment strategy to address the potential expansion or upgrade of Army operational ranges.

(5) An analysis of alternatives to the expansion of Army operational ranges, including an assessment of the joint use of operational ranges under the jurisdiction, custody, or control of the Secretary of another military department.

(6) An analysis of the cost of, potential military value of, and potential legal or practical impediments to, the expansion of the Joint Readiness Training Center at Fort Polk, Louisiana, through the acquisition of additional land adjacent to or in the vicinity of the installation.

(7) An analysis of the impact of the proposal described in paragraph (2)(D) on the plan developed prior to such proposal to relocate forces from Germany to the United States and vacate installations in Germany as part of the Integrated Global Presence and Basing Strategy, including a comparative analysis of--

(A) the projected utilization of the three combat training centers of the Army if all of the six light infantry brigades proposed to be added to the active component of the Army would be based in the United States; and

(B) the projected utilization of such ranges if at least one of those brigades would be based in Germany or if one of the brigades proposed to be relocated pursuant to the plan in paragraph (a)(2)(C) is retained in Germany.

(8) If the analysis required by paragraph (7) indicates that the Joint Multi-National Readiness Center in Hohenfels, Germany, or the Army's training complex at Grafenwoehr, Germany, would not be fully utilized under the basing scenarios analyzed, an estimate of the cost to replicate the training capability at that center in another location.

(b) Report on Potential Expansion of Marine Corps Operational Ranges- Not later than 180 days after the date of the enactment of this Act, the Secretary of the Navy shall submit to the congressional defense committees a report containing an assessment of Marine Corps operational ranges used to support training and range activities of the Marine Corps. The report required shall include the following information:

(1) The size, description, and mission-essential tasks supported by each major Marine Corps operational range during fiscal year 2003.

(2) A description of the projected changes in Marine Corps operational range requirements, including the size, characteristics, and attributes for mission-essential

activities at each range and the extent to which any changes in requirements are a result of the proposal contained in the fiscal year 2008 budget request to increase the size of the active component of the Marine Corps to 202,000 personnel by the end of fiscal year 2012 and any modification or acceleration contemplated in the budget submission for fiscal year 2009.

(3) The projected deficit or surplus of land at each major Marine Corps operational range, and a description of the Secretary's plan to address that projected deficit or surplus of land as well as the upgrade of range attributes at each existing Marine Corps operational range.

(4) A description of the Secretary's prioritization process and investment strategy to address the potential expansion or upgrade of Marine Corps operational ranges.

(5) An analysis of alternatives to the expansion of Marine Corps operational ranges, including an assessment of the joint use of operational ranges under the jurisdiction, custody, or control of the Secretary of another military department.

(6) An analysis of the cost of, potential military value of, and potential legal or practical impediments to, the expansion of Marine Corps Base, Twenty-nine Palms, California, through the acquisition of additional land adjacent to or in the vicinity of that installation that is under the control of the Bureau of Land Management.

(c) Supplemental Report- Not later than 90 days after the date on which the second of the two reports required by subsections (a) and (b) is submitted, the Secretary of Defense shall submit to the congressional defense committees a report containing the following information:

(1) A description of initiatives by the Secretary of Defense to coordinate the range expansion activities of the Army and Marine Corps in order to gain efficiencies in investment and resource allocation.

(2) An analysis of training requirements for the Army and the Marine Corps that could be accomplished through joint use of existing ranges.

(3) An analysis of the responses provided by the Secretary of the Army under subsection (a)(5) and the Secretary of the Navy subsection (b)(5).

(4) Any other matter that the Secretary of Defense considers to be of importance to ensure the effective and

timely expansion of ranges to meet Army and Marine Corps training requirements.

(d) Definitions- In this section:

(1) The term `Army operational range' has the meaning given the term `operational range' in section 101(e)(3) of title 10, United States Code, except that the term is limited to operational ranges under the jurisdiction, custody, or control of the Secretary of the Army.

(2) The term `Marine Corps operational range' has the meaning given the term `operational range' in section 101(e)(3) of such title, except that the term is limited to operational ranges under the jurisdiction, custody, or control of the Secretary of the Navy that are used by or available for use by the Marine Corps.

(3) The term `range activities' has the meaning given that term in section 101(e)(2) of such title.

This page intentionally left blank.

APPENDIX B: OPERATIONAL RANGE DESCRIPTIONS

1 OPERATIONAL RANGE DESCRIPTIONS

1.1 Marine Corps Air Ground Combat Center/Marine Air Ground Task Force Training Command, Twenty-nine Palms

1.1.1 Size

The Marine Corps Air Ground Combat Center (MCAGCC)/Marine Air Ground Task Force Training Command (MAGTFTC) is located in the Mojave Desert 65 miles east of Los Angeles and 160 miles northeast of San Diego.

MCAGCC/MAGTFTC occupies more than 598,397 acres of high desert consisting of rugged terrain composed of numerous mountain ranges and valleys. Approximately 11,007 acres of cantonment areas comprised of non-training infrastructure (such as buildings, roads, and vehicle parking lots) and approximately 584,126 acres of training land (not including designated impact areas) exist at MCAGCC/MAGTFTC.

MCAGCC/MAGTFTC also includes 814 square nautical miles (nm^2) of designated Special Use Airspace (SUA).

1.1.2 Operational Range Description

MCAGCC/MAGTFTC is divided into 22 designated training areas. Training areas facilitate range scheduling and range management. Range infrastructure, such as firing ranges, live-fire and maneuver areas (LFAMs), and Military Operations in Urban Terrain (MOUT) facilities, is located within designated training areas. Designated ranges may be located within one training area or may be situated across training area boundaries in multiple training areas. Extensive portions of the training areas do not contain designated range infrastructure, and are used for live fire and maneuver training as well as maneuver-only training. In this regard MCAGCC/MAGTFTC is unique within the Marine Corps. Training units fire into training areas with dud-producing ordnance then maneuver through these same areas. Other unique features of MCAGCC/MAGTFTC include the Expeditionary Air Field with an 8,000 ft aluminum matting runway and nearby Camp Wilson, the expeditionary home for units training at MCAGCC/MAGTFTC. Both of these austere but completely functional facilities enhance the live fire training experience at Twenty-nine Palms and contribute to the expeditionary nature of the training conducted there. The live-fire and maneuver approach to the use of training land is a critical feature of the Marine Corps' focus on

realistic live-fire combined arms training, and ensures MCAGCC/MAGTFTC is capable of supporting live-fire training exercises. Table B-1 contains descriptions of the Operational Range.

Table B-1: MCAGCC/MAGTFTC Twenty-nine Palms: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	MCAGCC/MAGTFTC includes 814 nm^2 of SUA designated as R-2501, North, South, East and West. All of the SUA from surface to 26,000 ft is available 24 hours a day, seven days a week. From surface to infinity is also available for military scheduling except from 0900-1200 and 1700-2100 daily. • R-2501N overlies 237 nm^2 in the north and northwestern portions of MCAGCC/MAGTFTC. • R-2501S overlies 197 nm^2 in the southern portion of MCAGCC/MAGTFTC. • R-2501E overlies 304 nm^2 in the eastern portion of MCAGCC/MAGTFTC. • R-2501W overlies 76 nm^2 in the western portion of MCAGCC/MAGTFTC. SUA also includes the Bristol Military Operating Area (MOA), 5,000 ft Mean Sea Level (MSL) to Flight Level (FL) 270 and the Sundance MOA, 500 ft Above Ground Level (AGL) to 10,000 ft MSL.
Aviation Training Facilities	MCAGCC/MAGTFTC has numerous facilities that support aviation training, they include: • 15 Helicopter Landing Zones • 15 Laser Target Areas with both Simulated Laser Targets and a Mobile Independent Target System • 1 Live Fire Urban Developed Aviation Range • 1 Urban Array Collateral Damage Only Range • 1 Sensitive Fused Munitions Range • 1 Fixed Wing Low Altitude Tactics Route • 6 Rotary Wing Terrain Flight Routes

Range / Training Area	Description
Training Areas	MCAGCC/MAGTFTC's 22 designated training areas encompass 584,126 acres of training land, including maneuver training areas (non-live fire), LFAMs, fixed ranges, artillery, and mortar firing locations, MOUT facilities and other range or training areas such as drop zones, helicopter landing zones, and engineer training areas. A few base ranges are located within one or more designated training areas, and in some cases are situated across training area boundaries or in multiple training areas.
Amphibious Landing Beaches	There are no amphibious landing beaches at MCAGCC/MAGTFTC.
Live-Fire and Maneuver Areas (LFAMs)	LFAMs at MCAGCC/MAGTFTC support training exercises that practice the coordination of infantry, armored vehicles, aviation ordnance, artillery, mortars, bombs and combat service support operations during various offensive assault and attack scenarios. In a sense much of MCAGCC/MAGTFTC is an LFAM in that as units may maneuver through 16 training areas where live fire was conducted, including areas used for live fire with dud-producing ordnance.
Fixed Live-Fire Ranges	Fixed live-fire ranges are designated areas with targets and in some cases monitoring/scoring devices for live-fire training. MCAGCC/MAGTFTC contains 23 fixed ranges. These ranges support weapons training with pistols, rifles, machine guns, mortars, tanks, antitank assault weapons, grenades, missiles, mortars and artillery. 22 of the firing ranges are located in the Range Training Area with six designated for the support of the Marine Corps' marksmanship training program.
Artillery and Mortars	Due to the unique capability of MCAGCC/MAGTFTC to allow maneuver through areas where dud-producing ordnance has been fired it is not necessary to establish dedicated artillery firing areas or positions. Artillery may be fired from an infinite number of locations at MCAGCC/MAGTFTC. While the same is generally true for mortars there is one dedicated mortar range located in the Range Training Area.

Range / Training Area	Description
Impact Areas	Three dedicated impact areas cover approximately 3,264 acres of MCAGCC/MAGTFTC. These three areas support sensitive-fused weapons firing. The great majority of the training land is managed to support both live fire impacts and maneuver. Units in training fire weapons into the training areas using both training practice and service ammunition, including dud-producing ordnance, and simultaneously maneuver through the same training area.
MOUT Facilities	To support urban training, MCAGCC/MAGTFTC has a single MOUT Assault Course facility with six scenario lanes capable of live fire training with small arms (no crew serve), M-203 (Training Practice only), and fragmentation grenades.

1.1.3 Range Enhancements 2003-Present

Subsequent to FY2003, MCAGCC/MAGTFTC has enhanced training ranges/capabilities with the addition of multiple MOUT-type facilities. These include three non-live-fire complexes with a total of almost 700 reconfigurable buildings that support unit-level training up to the battalion level. Additionally there is a live-fire 14-structure range designed to train vehicle convoys as well as individuals and small units in room clearing and other urban tactics. There is also a live-fire 26-structure range to train individuals and small units (to platoon size) in urban tactics; it supports live-fire from wheeled and tracked vehicles including the Light Armored Vehicle (LAV) and M1A1 tank.

1.1.4 Mission Essential Tasks Supported

Operational forces stationed at MCAGCC/MAGTFTC include:

- Headquarters, 7th Marine Regiment
- 1st Battalion (Bn), 7th Marines
- 2nd Bn, 7th Marines
- 3rd Bn, 7th Marines
- 3rd Bn, 4th Marines
- 3rd Bn, 11th Marine Artillery Regiment
- 1st Tank Bn
- 3rd Light Armored (LAR) Bn

- Company D, 3rd AAV Bn
- 7th Combat Logistics Bn
- Marine Wing Support Squadron 374
- Marine Unmanned Aerial Vehicle Squadron (VMU) 1

The MCAGCC/MAGTFTC range provides the primary training venue for all the Marines and units that are stationed at the Base. MCAGCC/MAGTFTC supports one formal school, the Marine Corps Communications Electronics School, which provides initial training to individual Marines. The base ranges also support training by Marines assigned to non-deploying units such as Base headquarters.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals additionally provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (Marine Expeditionary Unit (MEU)-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-2: Training Tasks Supported-MCAGCC/MAGTFTC Twenty-nine Palms

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools	X				
Base Units (non-deploying)	X				
Infantry	X	X	X	X	
Artillery	X	X	X	X	
Tank	X	X	X	X	
Light Armored Reconnaissance	X	X	X	X	
Combat Engineer	X	X	X	X	
Assault Amphibian Vehicle	X	X	X	X	
Engineer Support	X	X	X	X	
Combat Logistics (Convoy Operations)	X	X	X	X	
Aviation-Rotary Wing	X	X	X	X	
Aviation-Fixed Wing	X	X	X	X	

1.2 Marine Corps Base Camp Pendleton

1.2.1 Size

Marine Corps Base Camp Pendleton is located on the coast of southern California, 82 miles south of Los Angeles and 38 miles north of San Diego.

Camp Pendleton occupies more than 125,704 acres of varied terrain, including 17.1 miles of shoreline.

The Base includes approximately 11,000 acres of cantonment areas comprised of non-training infrastructure (such as buildings, roads, and vehicle parking lots).

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Aviation-Rotary Wing					
Aviation-Fixed Wing					

1.14 Marine Corps Mountain Warfare Training Center Bridgeport

1.14.1 Size

MCMWTC is located at Pickel Meadow, 24 miles north of Bridgeport, California on U.S. Forest Service (USFS) land. The Training Center occupies approximately 46,000 acres of Toiyabe National Forest in the Sierra Nevada Mountains.

MCMWTC Bridgeport includes approximately 783 acres of cantonment area comprised of non-training infrastructure, including buildings, roads, vehicle parking lots, and a helicopter capable airfield and aircraft hangars.

1.14.2 Operational Range Description

MCMWTC is sited at 6,762 ft; with elevations in the training areas increasing to about 12,000 ft. Table B-27 describes the training areas and ranges of this installation.

Uniquely among Marine Corps ranges, the MCMWTC does not occupy DoD lands, but lies wholly within lands administered by the U.S. Forest Service. Constraints on military use of these public lands are likewise unique and present challenges to execution of required training. As noted in Section 2.1, lessons learned in the course of combat operations in Afghanistan highlight the need for, among other things, a robust mountain operations training capability. The MCMWTC provides, and will continue to provide, such a capability for the Marine Corps. The Marine Corps is coordinating with the Forest Service in an effort to optimize training capabilities at MCMWTC.

Table B-27: MCMWTC Bridgeport: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There is no SUA associated with MCMWTC Bridgeport.
Aviation Training Facilities	There are eight USFS-approved helicopter landing zones that support aviation training.
Training Areas	MCMTWC is organized into 11 training areas, totaling 45,217 acres.
Amphibious Landing Beaches	There are no amphibious landing beaches at MCMWTC Bridgeport.
Live-Fire and Maneuver Areas (LFAMs)	There are no LFAMs at MCMWTC Bridgeport
Fixed Live-Fire Ranges	MCMWTC Bridgeport operates and maintains 17 fixed live-fire ranges, including one pistol range for marksmanship re-qualification training and weapons familiarization, 4 sniper ranges for high-angled small arms firing, 3 demolition ranges for avalanche initiation, and 9 open-field, non-instrumented small arms ranges.
Artillery and Mortars	There are no artillery or mortar positions at MCMWTC Bridgeport.
Impact Areas	Non-dudded impact areas support the small arms ranges.
MOUT Facilities	There are no MOUT facilities located at MCMWTC Bridgeport.

1.14.3 Range Enhancements 2003-Present

Range improvement projects and increased personnel support have been resourced since 2003 to sustain and upgrade existing capabilities.

1.14.4 Mission Essential Tasks Supported

Located in the Sierra Nevada Mountains of California on land used by the Marine Corps under inter-agency agreements with the U.S. Forest Service, MCMWTC supports advisor training team training, a key component of the Marine Corps' Pre-deployment Training Program supporting Operation Enduring Freedom/Afghanistan operations; and individual, small unit, and battalion level training in summer and winter mountain operations. Training is also provided to other Services, particularly to special operations forces. Additionally, the MCMWTC supports allied training including

United Kingdom Royal Marine Commando and Dutch Royal Marines exercises; as well as multi-national student training for students from Germany, Chile, Singapore, Norway, Kirghizstan, Kazakhstan, and Canada. The training emphasizes individual and unit mountain skills that enhance overall combat capability. Formal school courses conducted at MCMWTC include: Mountain Scout Sniper Course, Mountain Medical Course, Mountain Survival and Evasion Course, Basic Mountain Leaders Course, Advanced Mountain Leaders Course, Animal Packers Course, and Mountain Operations Staff Planning Course. There are about 240 permanent Marine Corps and Navy personnel assigned to MCMWTC.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. For formal school courses such as conducted at MCMWTC these training objectives are incorporated into the Course Descriptive Data (CDD) which defines the Individual Training Standards (ITS) and other training tasks that support learning objectives. The CDD and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a learning objective. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the objective. The "standard" is a measure and criteria of performance. For unit-level training T&R Manuals and ITS specify training tasks, conditions, and standards much as they are specified for the formal schools in the CDD. T&R Manuals provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission

essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-28: Training Tasks Supported-MCMWTC Bridgeport

	Levels of Training				
Training Tasks	**Individual Skills**	**Unit Training-Small Units**	**Unit Training-Larger Units**	**MAGTF Training-MEU**	**MAGTF Training-MEB**
Formal Schools	X	X			
Base Units(non-deploying)	X				
Infantry	X	X	X	X	
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer	X	X			
Assault Amphibian Vehicle					
Engineer Support	X	X			
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X			
Aviation-Fixed Wing	X	X			

Table B-20: Training Tasks Supported-MCRD Parris Island

Training Tasks	Levels of Training				
	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools	X				
Base Units	X				
Infantry	X	X			
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer					
Assault Amphibian Vehicle					
Engineer Support					
Combat Logistics (Convoy Operations)					
Aviation-Rotary Wing					
Aviation-Fixed Wing					

1.11 Marine Corps Air Station Miramar

1.11.1 Size

MCAS Miramar is located in southern California, approximately 13 miles north of San Diego and four miles east of the Pacific Ocean. MCAS Miramar encompasses 23,116 acres. The Air Station is organized into three general geographic and functional sectors: Main Station, South/West Miramar, and East Miramar.

1.11.2 Operational Range Description

All ranges and training areas are located in East Miramar. East Miramar consists of over 14,000 acres, of which approximately 4,700 acres are designated specifically for

ground training operations. MCAS does not include any SUA. Table B-21 describes the MCAS Miramar ranges.

Table B-21: MCAS Miramar: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There is no SUA associated with MCAS Miramar.
Training Areas	4,700 acres of East Miramar are organized into five training areas, which are utilized for ground and aviation-related training.
Amphibious Landing Beaches	There are no amphibious lading beaches at MCAS Miramar.
Live-Fire and Maneuver Areas (LFAMs)	There are no LFAMs at MCAS Miramar.
Fixed Live-Fire Ranges	Miramar has various small arms ranges and an Explosive Ordnance Disposal range.
Artillery and Mortars	There are no artillery or mortar positions on MCAS Miramar.
Impact Areas	Non-dudded impact areas support the small arms ranges and a dudded impact area supports the Explosive Ordnance Disposal range.
MOUT Facilities	There is a very small MOUT facility on MCAS Miramar.

1.11.3 Range Enhancements 2003-Present

Range improvement projects and increased personnel support have been resourced since 2003 to sustain and upgrade existing capabilities.

1.11.4 Mission Essential Tasks Supported

The primary tenant of MCAS Miramar is the 3rd Marine Aircraft Wing. Units of the Marine Corps Reserve also are stationed at MCAS Miramar and regularly train there. The installation's ranges primarily support marksmanship training for Marines assigned to MCAS Miramar, and individual and small unit skills training for aviation support units.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to

basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals additionally provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training.

Table B-22: Training Tasks Supported-MCAS Miramar

	Levels of Training				
Training Tasks	**Individual Skills**	**Unit Training-Small Units**	**Unit Training-Larger Units**	**MAGTF Training-MEU**	**MAGTF Training-MEB**
Formal Schools					
Base Units (non-deploying)	X				
Infantry					
Artillery					
Tank (non-firing)	X				
Light Armored Reconnaissance					
Combat Engineer	X	X			
Assault Amphibian Vehicle					
Engineer Support	X	X			

Training Tasks	Levels of Training				
	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X			
Aviation-Fixed Wing	X	X			

1.12 Marine Corps Logistics Base Albany, Georgia

1.12.1 Size

Marine Corps Logistics Base (MCLB) Albany occupies 3,600 acres located 180 miles south of Atlanta, Georgia.

1.12.2 Operational Range Description

MCLB Albany has 4.41 acres dedicated to range activities as described in Table B-23 below.

Table B-23: MCLB Albany: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There is no SUA associated with MCLB Albany.
Aviation Training Facilities	There are no aviation training facilities at MCLB Albany.
Training Areas	There are no training areas at MCLB Albany
Amphibious Landing Beaches	There are no amphibious landing beaches at MCLB Albany
Live-Fire and Maneuver Areas (LFAMs)	There are no LFAMs at MCLB Albany.
Fixed Live-Fire Ranges	MCLB Albany has one small arms range for shotgun familiarization training and pistol requalification.
Artillery and Mortars	There are no artillery or mortar positions at MCLB Albany.

Range / Training Area	Description
Impact Areas	There is a non-dudded impact area to support the small arms range.
MOUT Facilities	There are no MOUT facilities at MCLB Albany.

1.12.3 Range Enhancements 2003-Present

No range improvement projects have been resourced for MCLB Albany since FY2003.

1.12.4 Mission Essential Tasks Supported

MCLB Albany is home to 650 active duty Marine Corps and Navy personnel. The small arms range supports annual pistol marksmanship requalification requirements and shotgun familiarization training for tenant units.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For organizations such as MCLB Albany and the Marines assigned there, T&R Manuals provide guidance for weapons firing. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training.

Table B-24: Training Tasks Supported-MCLB Albany

Training Tasks	Levels of Training				
	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools					
Base Units (non-deploying)	X				
Infantry					
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer					
Assault Amphibian Vehicle					
Engineer Support					
Combat Logistics (Convoy Operations)					
Aviation-Rotary Wing					
Aviation-Fixed Wing					

1.13 Marine Corps Logistics Base Barstow

MCLB Barstow is located in southern California, 134 miles east of Los Angeles and 152 miles southwest of Las Vegas, Nevada. It is comprised of three separate sites, including infrastructure at locations known as Nebo and Yermo, and a firing range. The range area contains a rifle and pistol range on 2,438 acres adjacent to the Nebo location.

1.13.1 Operational Range Description

MCLB Barstow operates and maintains rifle and pistol ranges as described in Table B-25 below.

Table B-25: MCLB Barstow: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There is no SUA associated with MCLB Barstow.
Aviation Training Facilities	There are no aviation training facilities at MCLB Barstow
Training Areas	There are no training areas at MCLB Barstow.
Amphibious Landing Beaches	There are no amphibious landing beaches at MCLB Barstow.
Live-Fire and Maneuver Areas (LFAMs)	There are no LFAMs at MCLB Barstow.
Fixed Live-Fire Ranges	MCLB Barstow operates and maintains one rifle range and one pistol range.
Artillery and Mortars	There are no artillery or mortar positions at MCLB Barstow.
Impact Areas	A non-dudded impact area supports the rifle and pistol ranges.
MOUT Facilities	There are no MOUT facilities at MCLB Barstow.

1.13.2 Range Enhancements 2003-Present

Range improvement projects and increased personnel support have been resourced since 2003 to sustain and upgrade existing capabilities. An automated re-qualification pistol range system was installed in 2008.

1.13.3 Mission Essential Tasks Supported

Active duty Marines and Sailors assigned to MCLB Barstow are the principal users of the rifle and pistol ranges. Additionally Marines from reserve Marine Air Group 46 (stationed at Edwards Air Force Base) and the Mountain Warfare Training Center at Bridgeport, California utilize MCLB Barstow ranges for weapons familiarization and qualification.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For organizations such as MCLB Barstow and the Marines assigned there, T&R Manuals provide guidance for weapons

firing. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training.

Table B-26: Training Tasks Supported-MCLB Barstow

	Levels of Training				
Training Tasks	**Individual Skills**	**Unit Training-Small Units**	**Unit Training-Larger Units**	**MAGTF Training-MEU**	**MAGTF Training-MEB**
Formal Schools					
Base Units (non-deploying)	X				
Infantry					
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer					
Assault Amphibian Vehicle					
Engineer Support					
Combat Logistics (Convoy Operations)					

assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. . T&R Manuals provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-14: Training Tasks Supported-MCB Hawaii

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools	X				
Base Units (non-deploying)	X				
Infantry	X	X			
Artillery	X (non-live fire)				
Tank					
Light Armored Reconnaissance	X				

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Combat Engineer	X	X			
Assault Amphibian Vehicle	X	X			
Engineer Support	X	X			
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X			
Aviation-Fixed Wing					

1.8 Marine Corps Air Station Beaufort: Townsend Bombing Range

1.8.1 Size

MCAS Beaufort is located near the Atlantic coast in South Carolina, 45 miles north of Savannah, Georgia and 70 miles south of Charleston, South Carolina. The MCAS itself occupies more than 6,900 acres. In addition, MCAS Beaufort has ownership responsibility for the 5,182 acres Townsend Bombing Range located 130 miles away in northern Georgia. The terrain at Townsend Bombing Range is flat, consisting primarily of pine forest broken by swamps.

There is no restricted airspace at MCAS Beaufort; however the Townsend Bombing Range includes R-3007 A-D, consisting of 255 nm^2 of designated SUA. There are no aviation ranges located at MCAS Beaufort; therefore, this operational range description will focus on Townsend Bombing Range.

1.8.2 Operational Range Description

Townsend Bombing Range is composed of SUA and impact areas with various targets. There are no ground training ranges located at the Townsend Bombing Range. Townsend supports inert aviation ordnance (no high explosive) dropped or fired from fixed wing and rotary wing aircraft at specific

targets. Townsend Bombing Range is heavily used by all Services. Table B-15 contains descriptions of the Operational Range.

Table B-15: MCAS Beaufort/Townsend Bombing Range: Summary Description

Range / Training Area	Description
Restricted Special Use Airspace (SUA)	The Townsend Bombing Range consists of 255 nm^2 of SUA, R-3007 which is sub-divided into five separate areas. • R-3007A: 73 nm^2 from surface to but not including 13,000 ft MSL • R-3007B: 57 nm^2 from 1200 ft AGL to 13,000 ft MSL • R-3007C: 93 nm^2 from 100 AGL to 13,000 ft MSL • R-3007D: 32 nm^2 from 13,000 ft MSL to FL 250 Additionally MCAS Beaufort exercises operational control over the Beaufort MOAs 1, 2, and 3 as well as W-74 A and B.
Training Areas	There are no designated training areas at Townsend Bombing Range. Use by ground maneuver units is not permitted.
Amphibious Landing Beaches	There are no amphibious landing beaches at MCAS Beaufort or Townsend Bombing Range.
Live-Fire and Maneuver Areas (LFAMs)	There are no LFAMs at Townsend Bombing Range.
Fixed Live-Fire Ranges	Townsend Bombing Range consists of a number of targets. • Conventional Bull • Surface to Air Missile Site • Command Post • Heavyweight Target • Hi Angle Strafe Target • Simulated antiaircraft Site • Petroleum Oil Lubricant Site (fuel farm) • Strafe Targets 1, 2 and 3 (hard target)
Artillery and Mortars	No artillery or mortars are fired at Townsend Bombing Range.
Impact Areas	Townsend Bombing Range has impact areas surrounding the various targets.
MOUT Facilities	There are no MOUT facilities at Townsend Bombing Range.

1.8.3 Range Enhancements 2003-Present

Range improvement projects and increased personnel support have been resourced since FY2003 to sustain and upgrade existing capabilities.

1.8.4 Mission Essential Tasks Supported

The Townsend Range supports limited air-to-ground aviation ordnance delivery training.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals additionally provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-16: Training Tasks Supported-MCAS Beaufort/Townsend Bombing Range

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools					
Base Units (non-deploying)					
Infantry					
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer					
Assault Amphibian Vehicle					
Engineer Support					
Combat Logistics (Convoy Operations)					
Aviation-Rotary Wing	X	X			
Aviation-Fixed Wing	X	X	X		

1.9 Marine Corps Base Quantico

1.9.1 Size

MCB Quantico is located in northern Virginia, approximately 36 miles south of Washington, D.C. and 20 miles north of Fredericksburg, Virginia.

Quantico consists of 64,000 acres of relatively flat to gently rolling and hilly terrain predominated by forested areas. It is intersected by Interstate Highway 95 and bounded to the east by the Potomac River.

The base includes 3,908 acres of cantonment area and 60,092 acres of training land (including impact areas), described below. MCB Quantico also includes 278 nm^2 of designated SUA.

MCB Quantico is also home to training facilities for the Federal Bureau of Investigation the Drug Enforcement Agency. The ranges that support these activities are not managed by the base and are not included in this report.

1.9.2 Operational Range Description

MCB Quantico is divided into numerous designated training areas that include maneuver training areas and firing ranges. Table B-17 contains descriptions of the Operational Range.

Table B-17: MCB Quantico: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	Quantico's 278 nm^2 of SUA is designated R-6608 A-C, all located in the western portion of the base overlying the majority of the training areas and firing ranges. • R-6608A overlies the northwest corner of the base; from surface to 10,000ft MSL. • R-6608B, the largest portion of SUA, overlies the southwest corner of the base; from surface to 10,000 ft MSL. • R-6608C overlies the eastern portion of the base from surface to 10,000 ft MSL. SUA also includes the DEMO MOA subdivided as DEMO MOA 1, 2, and 3. • DEMO 1 - 500 ft MSL to 5,000 ft MSL • DEMO 2 - 10,000 ft MSL to 15,000 ft MSL • DEMO 3 - above 5,000 ft MSL to 15,000 ft MSL
Aviation Training Facilities	MCB Quantico has 75 helicopter landing zones to support aviation and ground training; and 2 ranges that support limited aerial gunnery.
Training Areas	Quantico has 17 designated training areas that encompass 60,092 acres of training land, including maneuver training areas (non-live fire), LFAMs, fixed ranges, artillery, and mortar firing positions, MOUT facilities, and other range or training areas such as drop zones, helicopter landing zones, and engineer training areas.
Amphibious Landing Beaches	Quantico has no amphibious landing beaches.

Range / Training Area	Description
Live-Fire and Maneuver Areas (LFAMs)	Two ranges on Quantico are designated for squad-level LFAM training, and one is designated for platoon-level training. Six additional ranges are suitable for fire and movement training for infantry small units.
Fixed Live-Fire Ranges	MCB Quantico contains 40 fixed ranges. These ranges support weapons training with pistols, rifles, machine guns, mortars, antitank assault weapons, grenades, missiles, bombs, and artillery. Most firing ranges are situated along the perimeter of the central impact area.
Artillery and Mortars	Three gun positions and 2 mortar firing positions are designated for firing of inert and explosive artillery and mortar ammunition into the impact area.
Impact Areas	There are four dudded impact areas: three smaller areas totaling 592.9 acres that support demolitions training, and the central impact area of 3,014.7 acres. In addition there is a large non-dudded impact area of 22,790.8 acres encompassing several training areas across the center of the base.
MOUT Facilities	To support MOUT training the base has three urban training facilities: one MOUT facility (17 buildings), one combat town (13 buildings), and a MOUT Assault Course consisting of six buildings. No live fire is authorized in any of these facilities, except the MOUT Assault Course.

1.9.3 Range Enhancements 2003-Present

Range enhancements since 2003 include an automated small arms range, MOUT improvements, a Check Point/Entry Control Point range, and relocation of targets at existing ranges. Shock Absorbing Concrete live fire structures were installed at the MOUT Assault Course to replace old wooden buildings, and a nine-building modular non-live fire MOUT village was installed.

1.9.4 Mission Essential Tasks Supported

MCB Quantico does not host any deployable units. It is home to the headquarters of a wide variety of commands, schools and units. The Quantico range supports the Weapons Training Battalion as well as two formal military schools located on the Base, namely, The Basic School (entry-level officer's training) and the Marine Security Guard School. Quantico ranges also support requalification small arms

training for Marines assigned to units such as Base headquarters.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For formal schools these training objectives are incorporated into the Course Descriptive Data (CDD) which defines the Individual Training Standards (ITS) and other training tasks that support learning objectives. The CDD and ITS specify "task", "condition", and "standard", the "task" defines in broad terms the actions or process performed as part of a learning objective. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the objective. The "standard" is a measure and criteria of performance.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training.

Table B-18: Training Tasks Supported-MCB Quantico

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools	X	X			
Base Units (non-deploying)	X				
Infantry	X	X			
Artillery	X	X			
Tank					
Light Armored Reconnaissance					
Combat Engineer	X	X			
Assault Amphibian	X				

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Vehicle					
Engineer Support	X	X			
Combat Logistics (Convoy Operations)	X				
Aviation-Rotary Wing	X	X			
Aviation-Fixed Wing	X	X			

1.10 Marine Corps Recruit Depot Parris Island

1.10.1 Size

Marine Corps Recruit Depot (MCRD) Parris Island is located in Beaufort, South Carolina, 75 miles southwest of Charleston, 5 miles south of MCAS Beaufort, and 40 miles north of Savannah, Georgia. MCRD Parris Island encompasses 6,710 acres, of which 1,645 acres are improved lands.

1.10.2 Operational Range Description

MCRD Parris Island operates small arms ranges, a hand grenade range, and field training areas for recruit training, as described in Table B-19.

Table B-19: MCRD Parris Island: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There is no SUA associated with Parris Island.
Aviation Training Facilities	There are no aviation training facilities at Parris Island.
Training Areas	Parris Island has 4 field training/maneuver areas.
Amphibious Landing Beaches	There are no amphibious landing beaches associated with Parris Island.

Range / Training Area	Description
Live-Fire and Maneuver Areas (LFAMs)	There are no LFAMs located on Parris Island.
Fixed Live-Fire Ranges	MCRD Parris Island maintains four standard Known Distance (KD) rifle ranges, three pistol ranges, one additional small arms firing range, and one hand grenade range.
Artillery and Mortars	There are no artillery or mortar firing areas at Parris Island.
Impact Areas	Non-dudded impact areas support the small arms ranges. The grenade range includes a dudded impact area.
MOUT Facilities	There is one small MOUT facility located at Parris Island.

1.10.3 Range Enhancements 2003-Present

Range enhancements since 2003 include automated target systems on the rifle and pistol ranges.

1.10.4 Mission Essential Tasks Supported

MCRD Parris Island is home to 2,500 active duty Marine Corps and Navy personnel. The major commands stationed aboard MCRD Parris Island include Headquarters and Service Bn, Weapons and Field Training Bn, Recruit Training Regiment with four subordinate recruit training battalions and Support Bn. Formal schools located at MCRD Parris Island include Marine Corps Drill Instructor School, Combat Marksmanship Coaches and Combat Marksmanship Trainers courses, and the Series Officer Course. In addition to assigned units, Marines and Sailors from MCAS Beaufort and Marine Corps Reserve units from Georgia and South Carolina utilize the ranges at MCRD Parris Island for annual marksmanship qualification training. MCRD Parris Island is one of the two locations for entry-level training of Marines. Approximately 22,000 recruits are trained at Parris Island each year, to include all female recruits.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For formal schools such as the Recruit Depot at Parris Island these training objectives are incorporated into the Course Descriptive Data (CDD) which defines the Individual

Training Standards (ITS) and other training tasks that support learning objectives. The CDD and ITS specify "task", "condition", and "standard", the "task" defines in broad terms the actions or process performed as part of a learning objective. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the objective. The "standard" is a measure and criteria of performance.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training.

Range / Training Area	Description
	the Chocolate Mountains, consists of 32,782 acres and is organized in two areas known as Special Warfare Advanced Training (SWAT) areas. Live-fire tactical training up to the platoon-level is conducted at SWAT 4 and SWAT 5. Target mockups are used as well as portable targets representing vehicles, buildings, and personnel. Weapons used at the Desert Warfare Training Facility include: • Small arms • Grenades • 60mm mortars • Anti-tank/assault weapons • Explosives/demolitions **BMGR-W:** Target complexes located on the BMGR-W include the Urban Target Complex described in the MOUT facility section below and Cactus West. Cactus West is an instrumented air-to-ground range for inert weapons including bombs up to 1,000 lbs., rockets and practice rounds. The targets consist of a bullseye and strafe targets. Laser training is authorized.
Artillery and Mortars	Artillery may be fired from any of 12 surveyed firing positions into dedicated impact areas in the Chocolate Mountains. While the same is generally true for mortars there is one dedicated 60 mm mortar range located in the Desert Warfare Training Facility. Mortars may also so be fired occasionally as marking or spotting rounds associated with aviation training in the Urban Target Complex in the BMGR-W. There are no mortar ranges at MCAS Yuma.
Impact Areas	There are dud-producing impact areas at each of the small arms ranges, and a dud-producing impact area to support the explosive ordnance disposal site. There are also dud-producing impact areas associated with the Chocolate Mountains live bombing ranges as well as with each of the inert ordnance ranges listed above.
MOUT Facilities	There are no MOUT facilities for ground training at MCAS Yuma; there is however an instrumented aviation training MOUT facility, known as the Urban Target Complex at Yodaville located within BMGR-W. It is designed for precision inert conventional rockets, practice training rounds, and inert bombs delivered during Urban Close Air Support training. The Urban Target Complex consists of 178 buildings created from containers. Ground weapons are restricted to marking weapons such as mortars

Range / Training Area	Description
	firing smoke rounds.

1.5.3 Range Enhancements 2003-Present

Range enhancements since FY2003 include the complete rebuild and update of the Yuma Urban Target Complex, also known as Yodaville, located within the BMGR-W, and the establishment and/or upgrade of multipurpose automated small arms ranges, range control/communications systems, and a convoy security operations course.

1.5.4 Mission Essential Tasks Supported

MCAS Yuma is home to Marine Air Group 13 and its subordinate squadrons as well as a command and control squadron, a support squadron, and a headquarters squadron. It is also the home of a number of aviation-related formal schools:

- Weapons and Tactics Instructor Course
- Marine Aviation Weapons and Tactics Squadron-1 Commanders Course
- MEU Aviation Combat Element Commanders Course
- Marine Division Tactics Course
- Aviation Ground Support Course
- Air Command and Control Officer Course

The air station's small arms ground range and Explosive Ordnance Disposal site also support training by Marines assigned to non-deploying units such as the air station headquarters.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a

training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals additionally provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-10: Training Tasks Supported-MCAS Yuma

	Levels of Training				
Training Tasks	Individual Skills	Unit Training -Small Units	Unit Training -Larger Units	MAGTF Training -MEU	MAGTF Training-MEB
Formal Schools	X	X	X	X	
Base Units (non-deploying)	X				
Infantry					
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer					
Assault Amphibian Vehicle					
Engineer Support	X	X			
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X	X	X	X

Training Tasks	Levels of Training				
	Individual Skills	Unit Training -Small Units	Unit Training -Larger Units	MAGTF Training -MEU	MAGTF Training-MEB
Aviation-Fixed Wing	X	X	X	X	X

1.6 Marine Corps Base Camp Butler

1.6.1 Size

The MCB Camp Butler operational range is located on the island of Okinawa, Japan approximately 400 miles southwest of the Japanese island of Kyushu. Unlike other Marine Corps bases, Camp Butler is comprised of several different camps, training areas, and an air station that are physically dispersed throughout Okinawa. Collectively, Camp Butler occupies more than 47,000 acres of varied semi tropical terrain.

The Base includes approximately 9,368 acres of non-training land such as cantonment areas comprised of non-training infrastructure (such as buildings, roads, and vehicle parking lots). Camp Butler contains approximately 37,362 acres of training land (including impact areas), it also has SUA as described below.

In addition to training on Okinawa the Marines who are stationed there also train on 34,000 acres of training land located at the Fuji Maneuver Area (FMA) and Combined Arms Training Center, Camp Fuji on the Japanese island of Honshu some 800 miles northwest of Okinawa. By agreement the Japanese Self Defense Force schedules the use of the Fuji Maneuver Area (FMA) and it is available for use by U.S. Forces and the Japanese Self Defense Force.

1.6.2 Operational Range Description

Camp Butler includes 27 designated training areas and one amphibious landing beach on Okinawa. A nearby small island, Ie Shima (1,900 acres), is included among the designated training areas. There are 37,362 acres of training land (including impact areas) on Okinawa controlled by Camp Butler. The FMA includes 34,000 acres of training land consisting of 31 Training Areas that are located on two separate sites. The East FMA is 22,000 acres in size and the North FMA is 12,000 acres in size.

At both Camp Butler and Camp Fuji designation of training areas facilitates range scheduling and range management. Range infrastructure, such as firing ranges, LFAMs, and MOUT facilities, is located within designated training areas. Designated ranges may be located within one training area or may be situated across training area boundaries in multiple training areas. Extensive portions of the training areas do not contain range infrastructure, and are not used for live-fire training.

Table B-11 contains descriptions of the Camp Butler and Camp Fuji ranges.

Table B-11: MCB Camp Butler/Camp Fuji FMA: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	Camp Butler includes four specific SUA designations, R-177, R-195, R-201 and R-202. • R-177 overlies the Camp Hansen Easley Gunnery Area. It extends from surface to 3,000 ft MSL. • R-195 overlies the Camp Schwab impact area. It extends from surface to 3,000 ft MSL. • R-201 overlies the Northern Training Area. It extends from surface to 2,000 ft MSL. • R-202 overlies the Central Training Area. It extends from Surface to 1,000 ft MSL.
Aviation Training Facilities	Camp Butler's aviation training facilities include: • 38 Helicopter Landing Zones on Okinawa • An Expeditionary Air Field and Vertical Short Take Off Landing site both located on Ie Shima Island Camp Fuji's aviation training facilities include: • 34 helicopter landing zones • Two rotary wing live-fire (inert and training practice) ranges • A 2,100 ft asphalt landing strip Only simulated close air support is authorized in the East FMA while inert and training practice rounds fired from rotary wing aircraft are authorized in the North FMA.

Range / Training Area	Description
Training Areas	Camp Butler has 27 designated training areas on Okinawa including the one on Ie Shima. Additionally there are 31 training areas at Camp Fuji that support Camp Butler-based units. The Okinawa training areas total 31,900 acres and the Camp Fuji training areas total 34,000 acres. The training areas support maneuver training (non-live-fire), LFAM areas, fixed ranges, artillery and mortar firing areas, MOUT facilities, demolitions areas and other range or training areas such as drop zones, helicopter landing zones, and engineer training areas. Base ranges are located within one or more designated training areas and in many cases are situated across training areas boundaries or in multiple training areas.
Amphibious Landing Beaches	Camp Butler contains one designated landing beach 95 acres in size. Camp Fuji manages one designated landing beach 6.9 acres in size.
Live-Fire and Maneuver Areas (LFAMs)	Live-Fire and Maneuver training on Okinawa takes place only in the 11,000 acres Central Training Area. Two ranges in this area support training exercises that practice the coordination of infantry, mortars, armored vehicle, aviation (simulated close air support only), and combat service support operations during various offensive assault and attack scenarios. These two ranges support LFAM training for small units up to platoon size. Close Air Support training is limited to non-live-fire simulated events. Camp Fuji supports LFAM training for units up to battalion-size and provides the ability to integrate artillery fire and rotary wing Close Air Support into the training exercises, something that is not possible on Okinawa. This type of training takes place in both the 12,000 acres North FMA and with simulated Close Air Support only in the 22,000 acres East FMA.

Range / Training Area	Description
Fixed Live-Fire Ranges	Fixed live-fire ranges are designated areas with targets and some cases monitoring/scoring devices for live-fire training. Camp Butler contains 31 live fire-ranges in the Central Training Area (no live-fire is authorized in the 19,000 acres Northern Training Area). These ranges support weapons training with pistols, rifles, machine guns, mortars, antitank assault weapons, grenades, and missiles. Most firing ranges are generally situated along the perimeter of the two impact areas. At Camp Fuji there are 18 fixed live-fire ranges which offer greater training opportunities than those on Okinawa. In addition to the weapons authorized on Okinawa, tanks, artillery, and light armored vehicles are authorized to fire on the Camp Fuji ranges.
Artillery and Mortars	Artillery gun positions and mortar positions are designated locations for the firing of inert and explosive artillery and mortar ammunition into the impact areas. Okinawa has three gun positions and 11 mortar positions. Camp Fuji has six gun positions and three mortar positions.
Impact Areas	There are two impact areas that support live-fire on Okinawa. The Hansen impact area, 3,696 acres, and the Schwab impact area, 1,766 acres, are located in the Central Training Area (CTA). There are two impact areas at Camp Fuji. Secondary, non-dud producing impact areas are located to support firing ranges at both Okinawa and Camp Fuji
MOUT Facilities	There is a small six-building, non-live-fire combat town on Okinawa. At Camp Fuji there is a small non-live-fire MOUT facility consisting of 10 buildings and an extensive sub-terrain sewer system. This facility is equipped with camera systems for after action reviews.

1.6.2 Range Enhancements 2003-Present

Subsequent to FY2003 Camp Butler has enhanced ranges with a MOUT facility that includes over 60 buildings constructed from reconfigurable shipping containers. An instrumented small arms range has been built and instrumented targets have been installed on existing ranges. Video instrumentation has been added to a shoot house and a Combat Vehicle Operators Training course has been built.

1.6.3 Mission Essential Tasks Supported

Camp Butler is home to the Command Element and a preponderance of the subordinate units of the III Marine Expeditionary Force (III MEF). These include regiments and battalions of the 3rd Marine Division and 3rd Marine Logistics Group, squadrons of the 1st Marine Aircraft Wing, and the 31st Marine Expeditionary Unit. The Camp Butler and Camp Fuji ranges provide the primary training venue for Marines and units of III MEF that are stationed in Okinawa. Additionally, Camp Butler ranges support training by Marines assigned to non-deploying units such as Base headquarters.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-12: Training Tasks Supported-MCB Camp Butler/Camp Fuji FMA

Training Tasks	Levels of Training				
	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools					
Base Units (non-deploying)	X				
Infantry (including Camp Fuji)	X	X	X	X	
Artillery (Camp Fuji only)	X	X	X	X	
Tank (Camp Fuji only)	X	X	X	X	
Light Armored Reconnaissance (including Camp Fuji)	X	X	X	X	
Combat Engineer (including Camp Fuji)	X	X	X	X	
Assault Amphibian Vehicle (including Camp Fuji)	X	X	X	X	
Engineer Support (including Camp Fuji)	X	X	X	X	
Combat Logistics (Convoy Operations) (including Camp Fuji)	X	X			
Aviation-Rotary Wing	X	X	X		
Aviation-Fixed Wing (Ia Shima and Camp Fuji only)	X	X			

1.7 Marine Corps Base Hawaii

1.7.1 Size

The MCB Hawaii operational range is located on the island of Oahu.

The Base occupies 4,706 acres of relatively flat coastal plain, including 1.3 miles of shoreline that contains a landing beach training area.

The Base includes approximately 3,380 acres of non-training land, composed of cantonment areas and a Marine Corps Air Facility. MCB Hawaii contains approximately 1,326 acres of training land, described below. MCB Hawaii controls no SUA.

1.7.2 Operational Range Description

MCB Hawaii is divided into 14 designated training areas, one of which is an amphibious landing beach. Designation of training areas facilitates range scheduling and range management. Table B-13 contains descriptions of the MCB Hawaii ranges.

Table B-13: Marine Corps Base Hawaii: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	MCB Hawaii does not contain SUA.
Aviation Training Facilities	There are seven Helicopter Landing Zones at MCB Hawaii, four of which are on the main base at Kaneohe Bay, with three at the nearby Marine Corps Training Area Bellows (MCTAB).
Training Areas	MCTAB contains 1,001 acres of amphibious training area. Live-fire training is not permitted at MCTAB. The Kaneohe Bay Range Training Facility comprises 140 acres; training activities there include squad-level live-fire and maneuver and some fixed ranges. The Puuoloa Range Complex consists of 137 acres comprised of small arms requalification ranges.
Amphibious Landing Beaches	MCB Hawaii contains two small landing beaches. One, located in the MCTAB training area, is 43 acres in size and 0.9 of a mile in length. The second beach 0.4 of a mile in length is located at Pyramid rock beach on the Mokapu peninsula.
Live-Fire and Maneuver Areas (LFAMs)	One specified range on the base located at the Kaneohe Bay Range Training Facility supports LFAM training at the infantry squad level. The only indirect fire authorized is 60mm mortar fired from a static position.

Range / Training Area	Description
Fixed Live-Fire Ranges	MCB Hawaii contains 17 fixed ranges in two separate locations. Eleven of the firing ranges are located on the 140 acres Kaneohe Bay Range Training Facility. These ranges support static weapons training with pistols, rifles, machine guns, 60mm mortars, antitank assault weapons, and grenades. Six small arms ranges are located at the 137 acres Puuloa Range Complex.
Artillery and Mortars	There is one static 60 mm mortar firing position in the Kaneohe Bay Range Training Facility. MCBH cannot support live fire artillery training.
Impact Areas	There is a single impact area within the Kaneohe Bay Range Training Facility. Located within this impact area is a small dudded impact area that measures ½ acres and supports 60mm mortar, 40 mm grenades, and anti-tank assault rockets. The remainder of the impact area measures 5.92 acres and supports non-dud-producing munitions.
MOUT Facilities	Prior to FY2003, there were no MOUT facilities at MCB Hawaii.

1.7.3 Range Enhancements 2003-Present

Subsequent to FY2003, MCB Hawaii has enhanced its training capabilities with the addition of a 74-building MOUT facility built at MCTAB (no live fire is authorized). A modular live-fire shoot house and a shock absorbing concrete live-fire and grenade structure has been installed in the Kaneohe Bay Range Training Facility. Numerous target system upgrades were accomplished on several of the ranges located at Puuloa.

1.7.4 Mission Essential Tasks Supported

MCB Hawaii is home to the 3rd Marine Regiment; Marine Aircraft Group 24; Combat Logistics Bn 3; 1st Bn, 12th Marine Artillery Regiment; and 3rd Radio Bn. The base also supports a scout sniper school and training by Marines assigned to non-deploying units such as Base headquarters. As noted in this Report, the range capabilities of MCB Hawaii itself are limited to individual and small-unit training, and live-fire training is strictly constrained.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines

assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-6: Training Tasks Supported-MCB Camp Lejeune

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training -MEU	MAGTF Training -MEB
Formal Schools	X				
Base Units (non-deploying)	X				
Infantry	X	X	X	X	
Artillery	X	X	X	X	
Tank	X	X	X	X	
Light Armored Reconnaissance	X	X	X	X	
Combat Engineer	X	X	X	X	
Assault Amphibian Vehicle	X	X	X	X	
Engineer Support	X	X	X	X	
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X	X	X	
Aviation-Fixed Wing	X	X	X	X	

1.4 Marine Corps Air Station Cherry Point

1.4.1 Size

Marine Corps Air Station Cherry Point is located on the Atlantic coast in North Carolina, 100 miles northeast of Wilmington, 130 miles east of Raleigh and 50 miles northeast of Camp Lejeune.

The air station occupies onshore and near shore low lying coastal land areas that total 13,164 acres on the installation and 15,975 acres for auxiliary activities such as an outlying landing field and an island live fire range site. The range complex includes a full range of training

media including:

- Shallow ocean areas (less than 100 fathoms)
- Airspace over land
- Airspace over water
- Ground areas

There are 993 nm^2 of SUA at MCAS Cherry Point

1.4.2 Operational Range Description

Table B-7 contains descriptions of the Operational Range.

Table B-7: MCAS Cherry Point: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There are two blocks of SUA on MCAS Cherry Point, R-5306A and R-5306C. • R-5306A consists of 827 nm^2 from surface to 17,999 ft • R-5306C consists of 166 nm^2 from 1,200 AGL to 17,999 MSL Additionally MCAS Cherry Point exercises control authority over the Hatteras MOA, W-122A, W-122B as well as the Neuse Air Traffic Control Assigned Airspace (ATCAA).
Training Areas	There are 15 non live-fire training areas. Within these training areas are a Combat Vehicle Operators Training course and two aviation landing fields that support non live-fire aviation training at the Cherry Point operational range: Marine Corps Outlying Landing Field Atlantic. Supports air-to-ground training, chaff training, Electronic Warfare, bivouac, and convoy operations. Additionally, two helicopter/MV-22 landing zones have been constructed. Marine Corps Auxiliary Land Field Bogue Field. Primary location for Vertical Short Take-Off and Landing practice operations. It also supports Field Carrier Landing Practice, expeditionary airfield training and limited ground and rotary wing training.
Amphibious Landing Beaches	There are no amphibious landing beaches at Cherry Point.

Range / Training Area	Description
Live-Fire and Maneuver Areas (LFAMs)	There are no ground LFAMs at Cherry Point. Bombing Target (BT)-11 and BT-9 support numerous waterborne operations conducted by Special Operations units, Special Boat Teams, U.S. Coast Guard's Special Missions Training Center, and other units. Using units conduct live-fire and maneuver utilizing their small boats on these two ranges.
Fixed Live-Fire Ranges	There is one small arms training area utilized for marksmanship training consisting of a rifle range, pistol range and a multipurpose range. There are two BT ranges with associated sub-range targets and impact areas, designated BT-9 and BT-11. **BT-9 Brant Island** allows high explosives up to 100 lbs TNT equivalent, strafing, mine laying, chaff and flares, and forward firing free-fall inert ordnance up to 1,000 lbs. Targets consist of: Two barges and one hulk ship that have been grounded in Pamlico Sound. **BT-11 Piney Island** allows laser-guided training munitions and inert ordnance (up to 500 lbs). There are 15 Targets, 14 of which can be electronically scored: • Two Bulls Eyes • Three Strafing targets • Multiple moving targets • Surface to Air Missile sites • Target barge • Small Boat Target • Convoy • Two TOW targets
Artillery and Mortars	No artillery or mortars are fired at Cherry Point.
Impact Areas	MCAS Cherry has non-dud-producing impact areas to support the two small arms ranges and a dud-producing impact area at the Explosive Ordnance Disposal range. • BT-9 incorporates a dud-producing impact area. • BT-11 incorporates a non-dud-producing impact area.
MOUT Facilities	There are no MOUT facilities at Cherry Point.

1.4.3 Range Enhancements 2003-Present

Subsequent to FY2003 MCAS Cherry Point has constructed a Range Operational Control Center. A new computerized target system was installed on the pistol range; and a combat pistol range was installed. A combat vehicle operator course was constructed to accommodate wheeled vehicles of all types.

1.4.4 Mission Essential Tasks Supported

MCAS Cherry Point is home to the 2nd Marine Aircraft Wing. There are three subordinate fixed-wing Marine Air Groups within 2nd MAW that are assigned to Cherry Point. These consist of attack squadrons, electronic warfare squadrons, refueler squadrons, command and control squadrons and support squadrons, and headquarters squadrons. The air station's limited ground ranges also support training by Marines assigned to non-deploying units such as the air station headquarters. Additionally, the Base ranges support training events for other military Services.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals additionally provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission

essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-8: Training Tasks Supported-MCAS Cherry Point

	Levels of Training				
Training Tasks	Individual Skills	Unit Training -Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training -MEB
Formal Schools					
Base Units (non-deploying)	X				
Infantry					
Artillery					
Tank					
Light Armored Reconnaissance					
Combat Engineer					
Assault Amphibian Vehicle					
Engineer Support	X	X			
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X	X	X	
Aviation-Fixed Wing	X	X	X	X	

1.5 Marine Corps Air Station Yuma Ranges

1.5.1 Size

The headquarters for the MCAS Yuma is located in the southwest corner of Arizona near the town of Yuma, Arizona. MCAS Yuma and its associated training ranges and airspace are part of the Bob Stump Training Range Complex (BSTRC),

which also includes Navy ranges. This report will focus on the operational ranges owned by the Marine Corps, which include the Barry M. Goldwater Range-West (BMGR-W) in Arizona and the Chocolate Mountains Aerial Gunnery Range (Chocolate Mountains) in California.

The Yuma air station proper occupies desert land areas that total 4,345 acres. Ranges associated with and managed by MCAS Yuma consist of approximately 691,760 acres at the BMGR-W and 460,329 acres (including the Desert Warfare Training Facility) at the Chocolate Mountains. Together these ranges comprise approximately 1,152,089 acres of training land area utilized primarily for aerial bombing and aerial gunnery training. Training media at this operational range includes:

- Airspace over ground;
- Ground areas; and
- Diverse terrain, including significant vertical development.

There are 1,176 nm^2 of SUA within the BMGR-W located in western Arizona and 452 nm^2 in the Chocolate Mountains in southeastern California.

1.5.2 Operational Range Description

Table B-9 contains descriptions of the MCAS Yuma ranges.

Table B-9: MCAS Yuma: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	There are two blocks of SUA managed by the Marine Corps within the MCAS Yuma range complex: • R-2301W: 1,176 nm^2 extending from surface to 80,000 ft. and available at all times • R2507 N,S,E: 452 nm^2 extending from surface to 40,000 ft and available at all times As a regional airspace controller MCAS Yuma schedules and controls additional SUA including: R-2512, R-2306, R-2308, R-2307, R-2309, R-2311, R-2510, Dome MOA/ATCAA, Kane East MOA/ATCAA, Kane West MOA, Abel MOA/ATCAA, Turtle MOA/ATCAA, Quail MOA/ATCAA and Imperial ATCAA.
Training Areas	Lands within the Marine Corps managed portion of the BSTRC are primarily used as target complexes and impact areas in support of the air ranges. There is a ground range within the Chocolate Mountains known as the Desert Warfare Training Facility. This range is used by Navy special

Range / Training Area	Description
	warfare units. The Special Warfare units use this training area to train SEAL Teams and supporting Special Warfare units in desert warfare tactics and techniques to include weapons employment. Requests to use other BSTRC ranges for ground training will generally not be approved except in cases where the ground range requests may enhance or support aviation training.
Amphibious Landing Beaches	There are no amphibious landing beaches at MCAS Yuma.
Live-Fire and Maneuver Areas (LFAMs)	There is a platoon-level live-fire and maneuver area used by Naval Special Warfare platoons training at the Desert Warfare Training Facility in the Chocolate Mountains.
Fixed Live-Fire Ranges	There are two small arms ranges and one Explosive Ordnance Disposal site managed and controlled by MCAS Yuma located within the western portion of the BMGR-W. Air-to-ground ranges are located at the Chocolate Mountains and BMGR-W and described below. **Chocolate Mountains:** There are five Close Air Support target complexes, 250 targets, a helicopter range and three simulated airfields as well as the Desert Warfare Training Facility on the 460,329 acres range. The aviation ranges are authorized for both high explosive and inert munitions and lasers. They are not instrumented. There is a wide variety of targets to include: • Surface to Air Missile sites • Armored Columns • Railroad train • Bunker Complexes • Runways • Convoys • Command Post sites • Weapons employed include: • High Explosive Rockets up to 5" • High Explosive bombs up to 2,000 lbs • Hellfire • Rockeye • Joint Direct Attack Munitions • Tube-launched Optically-tracked Wire-guided (TOW) missile • Cluster bombs The Desert Warfare Training Facility, located in

Camp Pendleton contains approximately 114,000 acres of training land, (including impact areas) described below.

Camp Pendleton also includes 265 nm^2 of designated SUA.

1.2.2 Operational Range Description

Camp Pendleton is divided into 35 designated training areas and four amphibious landing beaches. Designation of training areas facilitates range scheduling and range management. Range infrastructure, such as firing ranges, LFAMs, and MOUT facilities, is located within designated training areas. Designated ranges may be located within one training area or may be situated across training area boundaries in multiple training areas. Extensive portions of the training areas do not contain designated range infrastructure, and are used for maneuver training. Table B-3 contains descriptions of the Operational Range.

Table B-3: MCB Camp Pendleton: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	Camp Pendleton includes 265 nm^2 of SUA designated as R-2503A-C. • R-2503A: overlies an ocean area adjacent to Camp Pendleton and land area extending inland approximately 2 nm; from surface to 2,000 ft MSL • R-2503B: overlies inland operating areas from surface to 15,000 ft MSL • R-2503C: overlies the northern two-thirds of R-2503B from 15,000 ft MSL to 27,000 ft MSL
Aviation Training Facilities	Camp Pendleton has numerous facilities that support aviation training they include: • 18 Administrative Landing Zones • 22 Tactical Landing Zones • 1 Heavy Lift Landing Zone/Simulated Landing Platform Dock Flight Deck • 1 Helicopter Outlying Landing Field • 1 Temporary Alternate Landing Area • 1 Simulated LHD Flight Deck • 2 Vertical Short Take Off Landing areas and 1 Short Take Off Landing area • 19 Confined Area Landing Sites

Range / Training Area	Description
Training Areas	Camp Pendleton has 35 designated training areas that encompass 91,817 acres of training land, including maneuver training areas (non-live fire), LFAMs, fixed ranges, artillery and mortar firing areas, MOUT facilities and other range or training areas such as drop zones, helicopter landing zones, and engineer training areas. Base ranges are located within one or more designated training areas, and in many cases are situated across training area boundaries or in multiple training areas.
Amphibious Landing Beaches	Camp Pendleton contains 4 designated landing beaches arrayed along its 17 miles of coastline.
Live-Fire and Maneuver Areas (LFAMs)	LFAMs support training exercises that practice the coordination of infantry, armored vehicles, aviation, and combat service support operations during various offensive assault and attack scenarios. Twelve specified locations on base are designated as LFAMs: • Two LFAMs support battalion-sized units in mobile assaults scenarios that integrate infantry, aviation, mechanized, and motorized units with direct and indirect fires. • Five LFAMs support company-sized infantry fire and maneuver training in use of both direct and indirect fires. • Three LFAMs support platoon or squad-sized infantry units in live-fire training scenarios. • One LFAM supports aerial attacks on targets simulating a mechanized column using anti-armor weapons systems. • One LFAM supports training of company-sized units in helicopter assault.
Fixed Live-Fire Ranges	Fixed live-fire ranges are designated areas with targets and in some cases monitoring/scoring devices for live-fire training. Camp Pendleton contains 75 fixed ranges. These ranges support weapons training with pistols, rifles, machine guns, mortars, tanks, antitank assault weapons, grenades, missiles, bombs, and artillery. Most firing ranges are generally situated along the perimeter of the central and secondary impact areas.

Range / Training Area	Description
Artillery and Mortars	Artillery firing areas, mortar firing areas and mortar positions are designated locations for the firing of inert and explosive artillery and mortar ammunition into the impact areas. Camp Pendleton has 45 artillery firing areas, 12 mortar firing areas, and 7 mortar positions.
Impact Areas	Impact areas cover approximately 29,000 acres of Camp Pendleton. The Base includes a Central Impact Area, that covers over 22,887 acres. It supports most of the live-fire ranges on base. Use of dud-producing ordnance is limited to the Central Impact Area. Non dud-producing impact areas, referred to collectively as "secondary impact areas," total approximately 7,000 acres. Secondary impact areas are located to support firing ranges across the Base.
MOUT Facilities	To support MOUT training the base has three urban training facilities including one MOUT facility (29 buildings), and two smaller combat towns (15 and 13 buildings respectively).

1.2.3 Range Enhancements 2003-Present

Subsequent to FY2003 Camp Pendleton has enhanced training ranges/capabilities with the addition of a Close Combat Battle Course, automated firing ranges, Shock Absorbing Concrete shoot houses, additional SUA (R-2503D), a live-fire convoy course, a tactical motor vehicle operator course, and three new MOUT training facilities to include an Infantry Immersion Trainer, a combat town, and a 101-building MOUT training system built with reconfigurable containers.

1.2.4 Mission Essential Tasks Supported

Camp Pendleton is home to the Command Element and a preponderance of the subordinate units of the I Marine Expeditionary Force (I MEF). These include regiments and battalions of the 1st Marine Division and 1st Marine Logistics Group, four MEUs, and squadrons of the 3rd Marine Aircraft Wing. The Camp Pendleton range provides the primary venue for home station training of Marines and units of I MEF that are stationed at the Base. The Camp Pendleton range also supports three formal military schools located on the Base to provide initial training to individual Marines and Sailors: School of Infantry-West, Assault Amphibian Vehicle School, and Field Medical Training Battalion. Additionally the Base provides the

field training environment and ranges to support Recruit training conducted by the Marine Corps Recruit Depot in San Diego. Camp Pendleton also hosts the Marine Corps' only AH-1W and UH-1N(Y) Aircrew MOS producing Fleet Replacement Squadron. Additionally, Camp Pendleton supports training of the Marine Special Operations Training Battalion (West). Camp Pendleton ranges also support training by Marines assigned to non-deploying units such as Base headquarters.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines assigned to them, T&R Manuals are developed according to basic unit type (e.g., infantry, low altitude air defense). For aviation flying units, T&R Manuals are developed based on aircraft types. T&R Manuals are supplemented by Individual Training Standards (ITS) and other training directives. T&R Manuals and ITS specify "task", "condition", and "standard"; the "task" defines in broad terms the actions or process performed as part of a training event. The "condition" is the list of variables of the environment that affect the performance of the task in the context of the event. The "standard" is a measure and criteria of performance. T&R Manuals additionally provide the basis for development of Mission Essential Task Lists by Commanders for particular focus in training.

The following table identifies categories of mission essential tasks and levels of the training continuum supported, at least in part, on this operational range. It is important to note that range capabilities vary greatly between installations. In this table, an indication that different operational range complexes support the same levels of training is not intended to imply that each has similar capabilities, or can support all of the mission essential tasks inherent in those levels of training. In particular, the ability to conduct MAGTF (MEU-level) training is made exceptionally challenging by the lack of contiguous land and airspace to support maneuver and the integration of fires.

Table B-4: Training Tasks Supported-MCB Camp Pendleton

	Levels of Training				
Training Tasks	Individual Skills	Unit Training-Small Units	Unit Training-Larger Units	MAGTF Training-MEU	MAGTF Training-MEB
Formal Schools	X	X			
Base Units (non-deploying)	X				
Infantry	X	X	X	X	
Artillery	X	X	X	X	
Tank	X	X	X	X	
Light Armored Reconnaissance	X	X	X	X	
Combat Engineer	X	X	X	X	
Assault Amphibian Vehicle	X	X	X	X	
Engineer Support	X	X	X	X	
Combat Logistics (Convoy Operations)	X	X			
Aviation-Rotary Wing	X	X	X	X	
Aviation-Fixed Wing	X	X	X	X	

1.3 Marine Corps Base Camp Lejeune

1.3.1 Size

MCB Camp Lejeune is located on the coast of eastern North Carolina, approximately 50 miles northeast of Wilmington, 246 miles east of Charlotte and 120 miles southeast of Raleigh.

Camp Lejeune occupies approximately 156,000 acres (including impact areas) of flat, forested coastal plain, including inland waterways and 11.3 miles of ocean shoreline of which 1.2 miles is designated for amphibious landing beach training. The Base includes approximately 55,000 acres of non-training area land and waterways. The non-training lands are comprised of infrastructure such as

buildings, roads, and vehicle parking lots. The main water way at Camp Lejeune is the New River that divides the Base into two separate areas. There are also tributaries, 82 miles of shoreline, and low lying coastal waters that are used for training.

Camp Lejeune contains approximately 101,000 acres of training land, described below.

Camp Lejeune also includes 152 nm^2 of designated SUA.

1.3.2 Operational Range Description

Camp Lejeune is divided into 84 designated training areas and one amphibious landing beach. Designation of training areas facilitates range scheduling and range management. Range infrastructure, such as LFAMs and MOUT facilities, are located within designated training areas. Designated ranges may be located within one training area or may be situated across training area boundaries in multiple training areas. Extensive portions of the training areas do not contain designated range infrastructure, and are used for maneuver training. Table B-5 contains descriptions of the Operational Range.

Table B-5: MCB Camp Lejeune: Summary Description

Range / Training Area	Description
Special Use Airspace (SUA)	Camp Lejeune includes 152 nm^2 of SUA designated as R-5303 A-C, R-5304 A-C and R5306 D-E. • R-5303A - C overlies the northern portion of the Greater Sandy Run (GSR) Area, it extends in increments: A, Surface to 6,999 ft, B, 7,000 to 9,999 ft and C, 10,000 to 17,999 ft MSL. • R-5304 A - C overlies the southern portion of the GSR Area. It extends in the same increments as R-5303 A - C. • R-5306E overlies a small portion of the maneuver area in the center of the base from Surface to 17,999 ft MSL. • R-5306D the largest portion of airspace overlies a majority of the eastern portion of the base and extends seaward about 6 nm. It extends from Surface to 17,999 ft MSL.

Range / Training Area	Description
Aviation Training Facilities	Camp Lejeune has 49 Tactical Landing Zones and 25 Administrative Landing Zones to support aviation training. Additionally there is a simulated LHD landing deck and Marine Corps Outlying Landing field (MCOLF) Oak Grove which is the primary location for rotary wing and tilt-rotor landing/take off practice operations.
Training Areas	Camp Lejeune has 84 designated training areas that encompass approximately 101,000 acres of training land, that includes maneuver training areas (non-live fire), live-fire ranges, artillery and mortar firing areas, Military Operations in Urban Terrain (MOUT) facilities, demolitions areas and other range or training areas such as drop zones, helicopter landing zones, convoy ops course, Forward Operating Bases and engineer training areas. Base ranges are located within one or more designated training areas, and in many cases are situated across training area boundaries or in multiple training areas.
Amphibious Landing Beaches	Camp Lejeune contains 1 designated landing beach, 1.2 miles in length along its 11.3 miles of coastline.
Live-Fire and Maneuver Areas (LFAMs)	LFAMs support training events or exercises that incorporate the employment of infantry, artillery, mortars, armored vehicle, aviation, aviation support, and combat service support operations during various offensive/defensive assault and attack scenarios. Eight specified ranges on the base support live-fire and maneuver training. They vary from ranges designed to train small units such as fire teams or squads up to ranges that support company-sized, live-fire training.
Fixed Live-Fire Ranges	Camp Lejeune contains 80 fixed live-fire ranges. These ranges support weapons training with pistols, rifles, machine guns, mortars, antitank assault weapons, tanks, LAV-25s, vehicle crew-served weapons, grenades, missiles, and artillery. Most live-fire ranges are generally situated along the perimeter of the three impact areas.
Artillery and Mortars	Artillery gun positions and mortar positions are designated locations for the firing of inert and explosive artillery and mortar munitions into the impact areas. Camp Lejeune has 27 gun positions and eight mortar positions.

Range / Training Area	Description
Impact Areas	There are three designated impact areas that support live-fire and inert weapons systems. Combined they equal 11,846 acres. Secondary, non dud-producing impact areas are located to support firing ranges across the Base.
MOUT Facilities	There is one MOUT facility at Camp Lejeune, it consists of 31 buildings and incorporates the six MOUT Assault Courses that provide small arms live fire urban training at the small unit level.

1.3.3 Range Enhancements 2003-Present

Subsequent to FY2003 Camp Lejeune has enhanced training ranges/capabilities with the addition of three MOUT facilities and expansion of an existing combat town (total buildings now number 179). In addition to the expanded MOUT facilities, two automated small arms firing ranges have been built, instrumented targetry has been installed on existing ranges, a water survival facility built, a convoy operations course created, two forward operating bases built, two hand grenade ranges built and aviation training facilities updated to include an Urban Close Air Support training range.

1.3.4 Mission Essential Tasks Supported

Camp Lejeune is home to the Command Element and a preponderance of the subordinate elements of the II Marine Expeditionary Force (II MEF). These include regiments and battalions of the 2nd Marine Division, 2nd Marine Logistics Group, three Marine Expeditionary Units, and helicopter and MV-22 squadrons of the 2nd Marine Aircraft Wing. Camp Lejeune ranges also provide the training venues for the U.S. Coast Guard Special Missions Training Center. Camp Lejeune ranges additionally support three formal military schools located on the Base to provide initial training to individual Marines: School of Infantry-East, Marine Corps Combat Service Support Schools, and Marine Corps Engineer School. Training by Marines assigned to non-deploying units such as Base headquarters is also conducted on the Camp Lejeune ranges as are training events for other U.S. Services.

As noted in Section 2, Marine Corps training is guided by an extensive series of directives that provide standardized individual and unit training objectives. Training and Readiness (T&R) Manuals are the core training directives. For ground units and some aviation units, and the Marines

COORDINATION PAGE

Office/Dept	Point of Contact	Phone	Date
I&E GC	Mr. Ron Borro	703-614-1090	28Aug08
I&E AGC	Mr. Tom Lundstrom	703-602-8205	28Aug08
MC OLA	Juliet Beyler	703-784-6218	28Aug08
MC OLA	Maj. Mark Carlton	703-692-0228	28Aug08
MC TECOM	Mr. Roger Jacobs	703-784-4548	28Aug08
DMCS	Col. L. A. Mercado	703-614-2828	28Aug08
FMOE	CAPT McGuern	703-692-6735	2 Sep 08
MC OLA	BGen Regnat	703-692-0196	2 Sep 08

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Murtha, Inouye, Rockefeller, Holt, and Reyes.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Inouye, Murtha, Skelton, Rockefeller, Holt, and Reyes.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, Skelton, Rockefeller, Holt, and Reyes.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Murtha, Skelton, Rockefeller, Holt, and Reyes.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable Silvestre Reyes
Chairman, Permanent Select
Committee on Intelligence
House of Representatives
Washington, DC 20515-6415

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Murtha, Skelton, Inouye, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Pete Hoekstra
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable John D. "Jay" Rockefeller
Chairman, Select Committee on Intelligence
United States Senate
Washington, DC 20510-6475

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Murtha, Skelton, Inouye, Holt, and Reyes.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Christopher S. "Kit" Bond
Vice Chairman

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 23 2008

The Honorable Rush Holt
Chairman, Select Intelligence
Oversight Panel
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Navy to submit to the Congressional defense and intelligence committees an Acquisition Program Baseline, System Development and Demonstration exit criteria, and a Capability Development Document for the Navy Aerial Common Sensor (ACS) Program no later than July 1, 2008.

The Navy ACS Program was renamed in Fiscal Year 2008 as the Navy Electronic Patrol (EP-X) Program, and is designated a pre-Major Defense Acquisition Program to re-capitalize the existing fleet of EP-3E aircraft. The Navy program will enter the Technology Demonstration (TD) phase of the acquisition lifecycle following a Milestone (MS) A review in Fiscal Year 2009. The purpose of the TD phase is to establish achievable cost, schedule, and performance parameters for system development and delivery of the operational capability. These parameters will form the basis of the documents identified in the conference report, which are required to be completed as part of the program's MS B review and entry into the System Development and Demonstration phase. The Navy will submit the completed documents to the committees at the time of the Navy's MS B review, currently planned for Fiscal Year 2011.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Murtha, Skelton, Inouye, Rockefeller, and Reyes.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Ray LaHood
Ranking Minority Member

REPORT TO CONGRESS

SHIPBUILDING INVESTMENT STRATEGY

Prepared by:

Office of the Assistant Secretary of the Navy
(Research, Development and Acquisition)
The Deputy Assistant Secretary of the Navy for Ship Programs
Washington, D.C. 20350

October 2008

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

TABLE OF CONTENTS

REPORT REQUIREMENTS 1

EXECUTIVE SUMMARY 2

ASSESSMENT OF SHIPBUILDING INDUSTRIAL BASE 3
- Estimated Value of Shipbuilding Facilities 3
- Estimated Value of Shipbuilding Facilities 4
- Critical Shipbuilding Capabilities 4
- Capital Expenditures 6
- Total Shipyard Capital Expenditures 7
- Major Investments in Process Improvements 10
- Costs for Related Navy Shipbuilding Projects 12

GOVERNMENT FINANCING FOR FACILITIES 13
- Facilities Capital Cost of Money 13
- Depreciation 14

MECHANISMS AVAILABLE TO GOVERNMENT TO FINANCE OR INCENTIVIZE FACILITIES AND PROCESS IMPROVEMENTS 14
- Contract Incentive and Award Fees 14
- Progress Payment Provisions 15
- State and Federal Tax Provisions and Tax Incentives 16
- The National Shipbuilding Research Program 16
- Other Mechanisms Available 18

POTENTIAL SHIPBUILDING INVESTMENTS 19

NAVY'S STRATEGY FOR PROVIDING INCENTIVES 20

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

REPORT REQUIREMENTS

The National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181), Section 122, directed the Secretary of the Navy to provide for a study and submit a report on the Department's Shipbuilding Investment Strategy. The authorization language specifically requested that the study examine—

"(1) potential improvements in design tools and techniques, material management, technology insertion, systems integration and testing, and other key processes and functions that would lead to reduced construction costs;

(2) construction process improvements that would reduce procurement and life-cycle costs of the vessels under construction at the contractor's facilities; and

(3) incentives for investment in shipyard infrastructure that support construction process improvements."

The authorization language further directed that the report include:

"(1) An assessment of the shipbuilding industrial base, as measured by a 10-year history for major shipbuilders with respect to—

(A) estimated value of shipbuilding facilities;
(B) critical shipbuilding capabilities;
(C) capital expenditures;
(D) major investments in process improvements; and
(E) costs for related Navy shipbuilding projects.

(2) A description of mechanisms available to the Government and industry to finance facilities and process improvements, including—

(A) contract incentive and award fees;
(B) facilities capital cost of money;
(C) facilities depreciation;
(D) progress payment provisions;
(E) other contract terms and conditions;
(F) State and Federal tax provisions and tax incentives;
(G) the National Shipbuilding Research Program; and
(H) any other mechanisms available.

(3) A summary of potential shipbuilding investments that offer greatest reduction to shipbuilding costs, including, for each such investment—

(A) a project description;
(B) an estimate of required investment;
(C) the estimated return on investment; and
(D) alternatives for financing the investment.

(4) The Navy's strategy for providing incentives for contractors' capital expenditures that would lead to ship construction or life-cycle savings to the Federal Government, including identification of any specific changes in legislative authority that would be required for the Secretary to execute this strategy."

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Finally, the authorization language mandated that the report utilize other studies and outside experts—

"The study shall build upon the results of the 2005 and 2006 Global Shipbuilding Industrial Base Benchmarking studies. Financial analysis associated with the report shall be conducted in consultation with financial experts independent of the Department of Defense."

EXECUTIVE SUMMARY

The Department of the Navy, in close collaboration with the Congressional Defense committees, has been actively engaged with our industry partners to find solutions to closing the gap in international shipbuilding performance. Through ongoing efforts of encouraging and maximizing competition however possible, providing incentives toward capital expenditures, stabilizing Navy shipbuilding plans, driving to common hull forms and components, and by communicating goals and expectations, the Department is pleased with the continuing upward trends in performance seen in the *First Marine International findings for the Global Shipbuilding Industrial Base Benchmarking Studies* of 2000 and 2005.

The Navy believes that enabling competition is the surest way to stimulate innovation and improvement in private industry. In light of that focus, this report describes the Department's strategy to foster innovation, encourage improvements, and help create an atmosphere that stimulates and facilitates value-added capital expenditures in the nation's private major shipyards. With a number of mechanisms to encourage investment in use today, moving forward the Department is focused on the following three main efforts:

- Standardizing our best practices for contract management;
- Managing shipbuilding efforts corporately;
- Optimizing information exchange.

The assessment of the shipbuilding industrial base reveals continued consolidation down to two corporate entities in the major-tier business, Northrop Grumman and General Dynamics, as well as steady facilities valuation levels, limited to minimal competition in certain classes of Naval warship construction, generally rising capital expenditure rates, and active improvement project efforts facilitated in part by Navy or state grants. With increasing emphasis on Fleet re-capitalization, conditions should remain favorable for continued shipyard capital investment and process improvement.

Pursuant to the language of Section 122, this report focuses primarily on the capabilities and activities of the six major shipyards only. Under Northrop Grumman Shipbuilding (NGSB) is Newport News Operations and Gulf Coast Operations, and under the Gulf Coast Operations (Northrop Grumman's Ship Systems (NGSS) sector) is NGSS Ingalls Operations (Pascagoula, MS), NGSS Avondale Operations (New Orleans, LA) and NGSS' Composites Center of

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Excelllence (Gulfport, MS). In this report, the combined NGSB operations of the gulf coast will be referred to at NGSB-GC. Under the General Dynamics Corporation is Bath Iron Works (BIW), Electric Boat (EB) and NASSCO (formerly National Steel and Shipbuilding Corporation).

As the Congressional language suggests, numerous options are available to Government and industry to finance facilities and process improvements. In light of this array of options, the challenge is less to invent new mechanisms but rather to coordinate the Department's current efforts into clear and coordinated strategies, especially across shipbuilding programs. There are sufficient mechanisms for incentivizing facilities improvements. Therefore, the Department has not identified any specific changes in legislative authority required to execute this strategy.

ASSESSMENT OF SHIPBUILDING INDUSTRIAL BASE

Estimated Value of Shipbuilding Facilities

The below values (in $K) represent Net Book Values of the shipbuilding facilities at each of the major U.S. shipbuilders. Book values contained in this report were provided by Northrop Grumman Corporation and General Dynamics Corporation. These values do not reflect an independent assessment by the Navy, and are affected by factors such as capitalization, depreciation, and market valuations. Due to industry consolidation, corporate governance, and reporting methodologies, values for the shipyards known traditionally as Avondale in New Orleans, Louisiana and Ingalls in Pascagoula, Mississippi are shown here as one entity referred to as Northrop Grumman Shipbuilding - Gulf Coast (NGSB - GC).

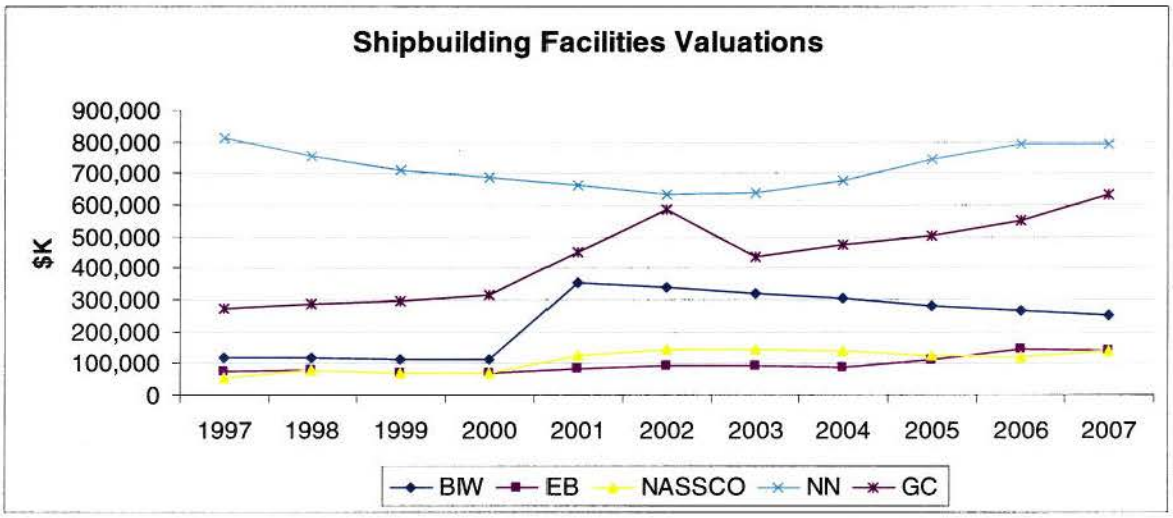
In fact, NGSB's Newport News and Gulf Coast Operations appear to be the only ones whose facility valuations increased from 2002 – 2007 by any significant measure (see graph below). This is widely due to cash infusions from the Navy and insurance as a result of Hurricane Katrina. Between those years, for instance, NGSB-NN valuation grew by nearly 25% and NGSB-GC's by 8.2%. For these same five years, 2002 – 2007, NGSB-GC capital expenditures grew by nearly 370% ($147M), while their facility valuation increased by only the previously mentioned 8.2%. Similarly, NGSB-NN's capital expenditures grew by 107% ($32M) during this same time period, while their facility valuation grew by 25%. Although both of these valuations signal a positive trend, in relation to their respective capital expenditures the NGSB-GC valuations are confounded by the effects of Hurricane Katrina and the subsequent Navy and insurance reimbursements.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Estimated Value of Shipbuilding Facilities

$K		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GD[1]	BIW	116,476	116,391	109,843	112,401	354,863	339,413	320,877	302,694	282,997	265,347	253,397
	EB[2]	74,271	79,601	69,221	68,334	81,368	93,518	90,907	89,507	108,987	147,131	140,580
	NASSCO[2]	54,000	77,000	70,000	70,000	125,000	147,000	144,000	138,000	128,000	122,000	142,000
NG[1]	NN	812,000	756,979	711,440	688,961	662,713	635,671	640,651	675,044	745,673	791,268	794,396
	GC	269,814	284,826	296,794	313,702	451,325	587,088[3]	434,372	476,462	502,755	553,293	635,483

Notes: 1. Values represent Net Book Value which is comprised of Capital/Acquisition Cost minus Accumulated Depreciation
2. Electric Boat (EB) and NASSCO do not include Land in Capital Cost
3. NGSB Gulf Coast (GC) value in 2002 is a rough composite of Avondale and Ingalls during a period of corporate asset transfer



Critical Shipbuilding Capabilities

Each of the major shipbuilders possesses a set of shipbuilding capabilities inherent to the industry and consistently benchmarked internationally through studies such as the 2000 and 2005 Global Shipbuilding Industrial Base Benchmarking studies. Main capability areas include steelwork production, outfit manufacturing and storage, pre-erection activities, ship construction and outfitting, and design and engineering.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

At the same time, individual shipyards possess capabilities that do not apply across the shipbuilding industry. The aforementioned Benchmarking studies highlight many of those gradations in the U.S. industry. There are four key areas of criticality: nuclear propulsion, submarine design and construction, aircraft carrier design and construction, and critical size and weight restrictions. For the first two areas, only Electric Boat and Newport News currently are capable of constructing ships utilizing government-furnished nuclear propulsion plants. In addition, only Newport News is capable of aircraft carrier design and construction. To illustrate critical size and weight restrictions, the following table provides a comparison of physical capabilities at each shipyard.

Shipyard Capabilities Summary

Capabilities	EB	NASSCO (Graving Dock)	NASSCO (Ways)	BIW	NGSB - Ingalls Ops	NGSB - Avondale Ops	NGSB - Newport News Ops
Length (ft)	600	987	906	750	844	1000	2167
Beam (ft)	78	166	112	125	173	173	246
Draft (ft)	33	16	32	27	33	35	32
Displacement (LT)	17,380	30,000	35,000	28,000	38,000	65,000	300,000

Electric Boat (EB): A General Dynamics business unit that designs, builds, and maintains nuclear attack and ballistic-missile submarines for the US Navy. Aside from being the prime design agent and contractor for the Virginia-class (SSN 774) attack sub program, EB is also heavily involved in assisting the U.K. with the design and construction of its Astute-class submarine.

NASSCO (formerly National Steel and Shipbuilding Company): A General Dynamics business unit split between Navy and commercial customers, NASSCO operates the largest new-construction shipyard on the West Coast, where it designs, builds, and repairs large, ocean-bound military and commercial ships. NASSCO's largest revenue generator is the T-AKE; a dry cargo/ammunition ship. Back in September of 2000, NASSCO received a $630-million contract from British Petroleum for the construction of three double-hulled crude oil tankers, with a third tanker exercised as part of their contract option in 2001. More recently, NASSCO entered into an agreement with a subsidiary of the Korean-owned Daewoo Shipbuilding, DSEC, in March 2006 to build nine double-hulled product tankers for U.S. coastwise trade for U.S. Shipping Partners L.P.

Bath Iron Works (BIW): A General Dynamics business unit specializing in the Arleigh Burke Class AEGIS guided-missile destroyer, BIW constructs technologically advanced surface ships for the US Navy. In addition, BIW's Surface Ship Support Center offers design and engineering, upgrade, logistics, manpower management, fleet services, and other support services.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Northrop Grumman Shipbuilding - Newport News (NGSB-NN): NGSB-NN is the nation's sole designer, builder, and refueler of nuclear-powered aircraft carriers and one of only two companies (other is GD) capable of designing and building nuclear-powered submarines. With major programs consisting of the CVN 21, CVN 77 (Nimitz-class nuclear powered aircraft carriers), and the Virginia-class submarine program, the US Navy accounts for almost all of their sales.

Northrop Grumman Shipbuilding – Gulf Coast (NGSB-GC): Made up of Avondale Operations and Ingalls Operations, they combined to form one operating unit for the design, engineering, construction, and life cycle support of major surface ships for the U.S. Navy, U.S. Coast Guard, and for commercial vessels of various types.

Capital Expenditures

As noted in the Benchmarking Study, U.S. shipyards experienced an increase in the best practices ratings in all categories as measured from the 2000 study. Although they lagged the International shipyards in all but one category (Outfit manufacturing and storage), the US shipyards were able to significantly close the productivity gap during the period under review. One area of focus of this report was to analyze US shipyard capital expenditures over a 10-year period. As detailed below, US shipyards show capital expenditures amounting to over $2.6B over this period. Although a portion of these expenditures can be traced to industry consolidation (in the case of Gulf Coast) and a variety of non-traditional funding sources in the wake of Hurricane Katrina, this still represents an investment by industry to modernize shipbuilding capabilities.

Without extensive insight into the corporate financial statements over this time period, it is difficult to draw a direct correlation between increases in capital expenditures and increased productivity and/or best practices metrics. However, it is important to note that the rate of capital expenditures over the period analyzed in the Benchmark Study do support this viewpoint.

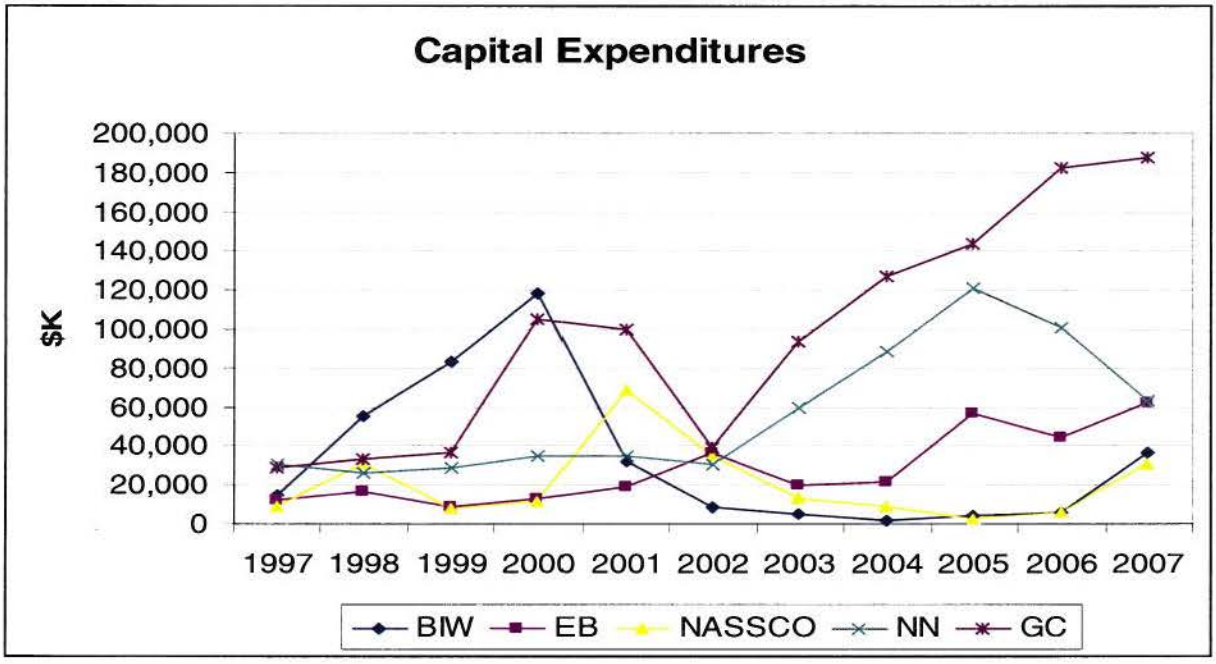
Below is a summary of total capital expenditures by shipyard (in $K). Again, Northrop Grumman's Ingalls and Avondale Operations are combined as one business unit, NGSB - Gulf Coast.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Total Shipyard Capital Expenditures

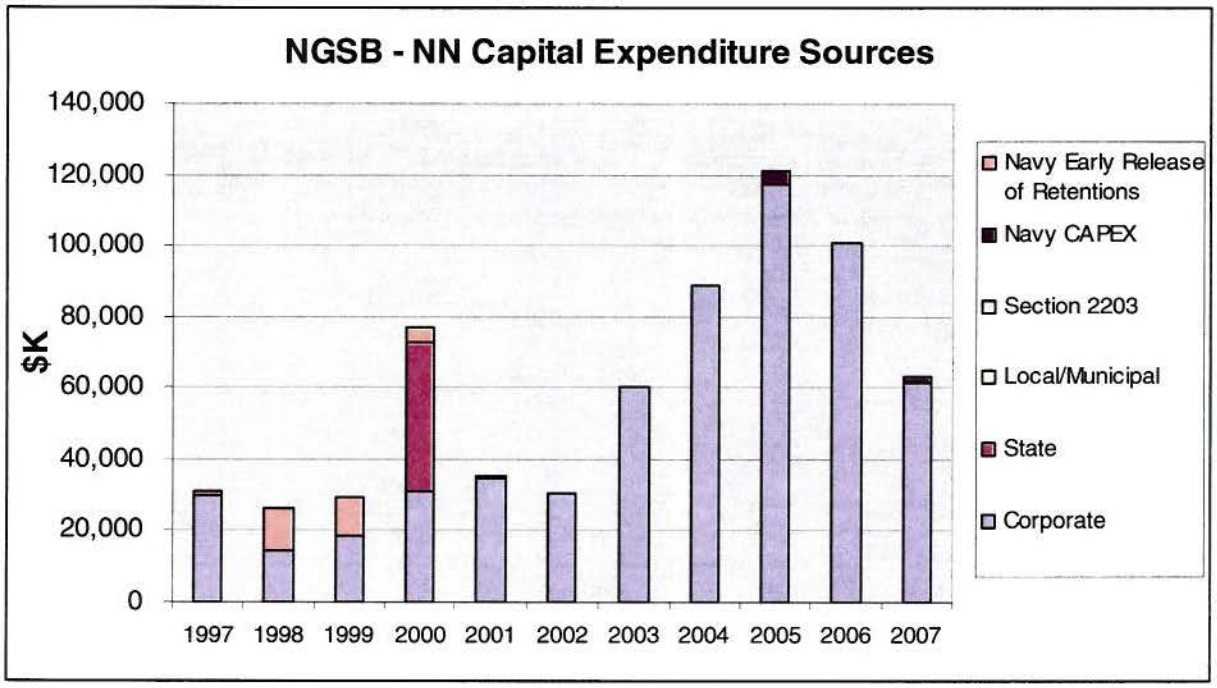
$K		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GD	BIW	15,196	55,677	83,661	118,343	32,492	9,022	4,960	1,567	4,144	6,310	36,711
	EB	11,928	16,824	8,418	12,805	18,964	36,535	20,265	22,133	56,963	44,416	61,881
	NASSCO	9,000	31,000	8,000	11,000	68,000	35,000	13,000	9,000	3,000	6,000	31,000
NG	NN	31,000	26,000	29,000	35,000	35,000	30,529	59,961	88,940	121,105	100,855	63,299
	GC	29,318	33,543	37,161	105,317	99,808	39,820	93,594	127,047	144,059[1]	182,093[1]	187,446[1]

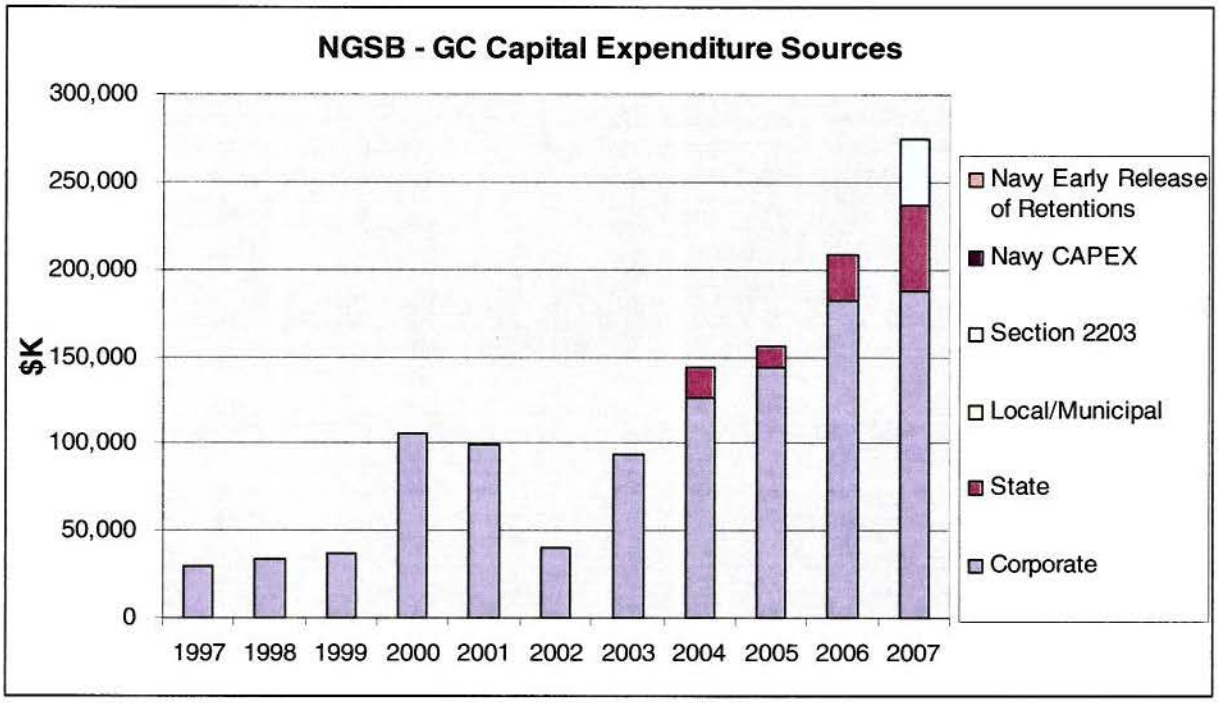
Note: 1. Values for NGSB – GC capital expenditures from 2005 through 2007 include substantial insurance payments resulting from the effects of Hurricane Katrina.



On the following pages is a summary of the sources of funding for capital expenditures by shipbuilding business unit as broken out into corporate funding, Navy Capital Expenditure (CAPEX) special incentives, Hurricane Katrina "Section 2203" funding, State investment, local and municipal investment, and Navy early release of contract retentions.

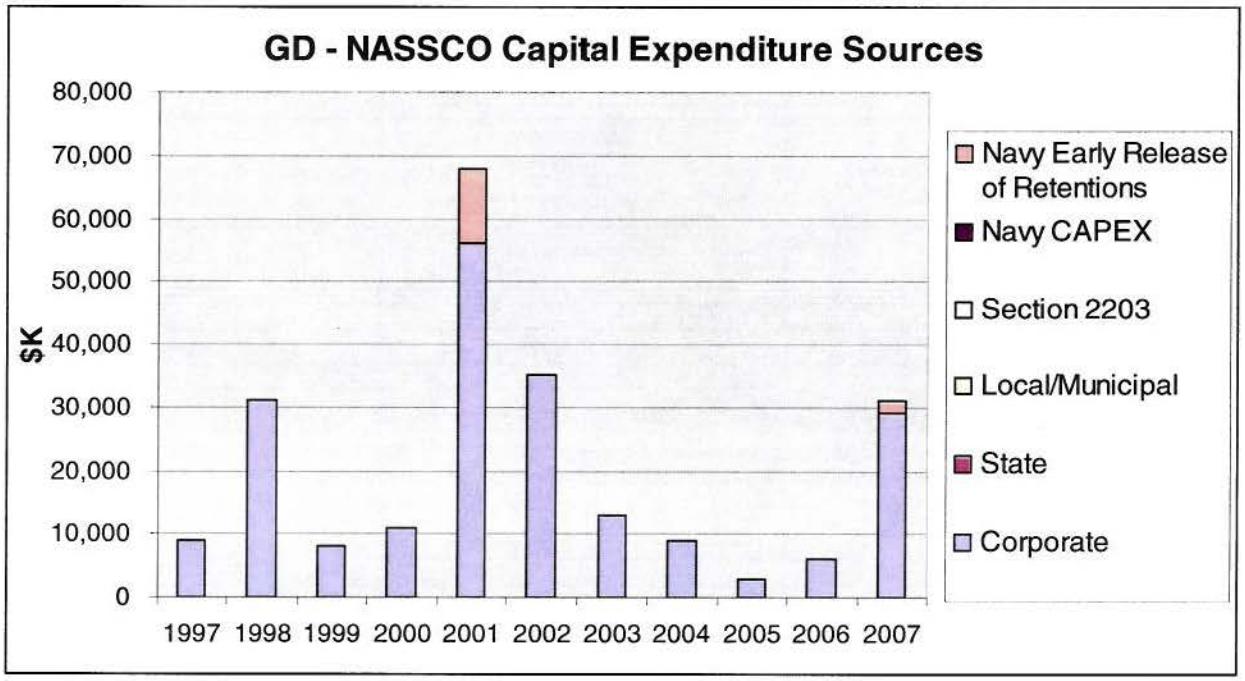
This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

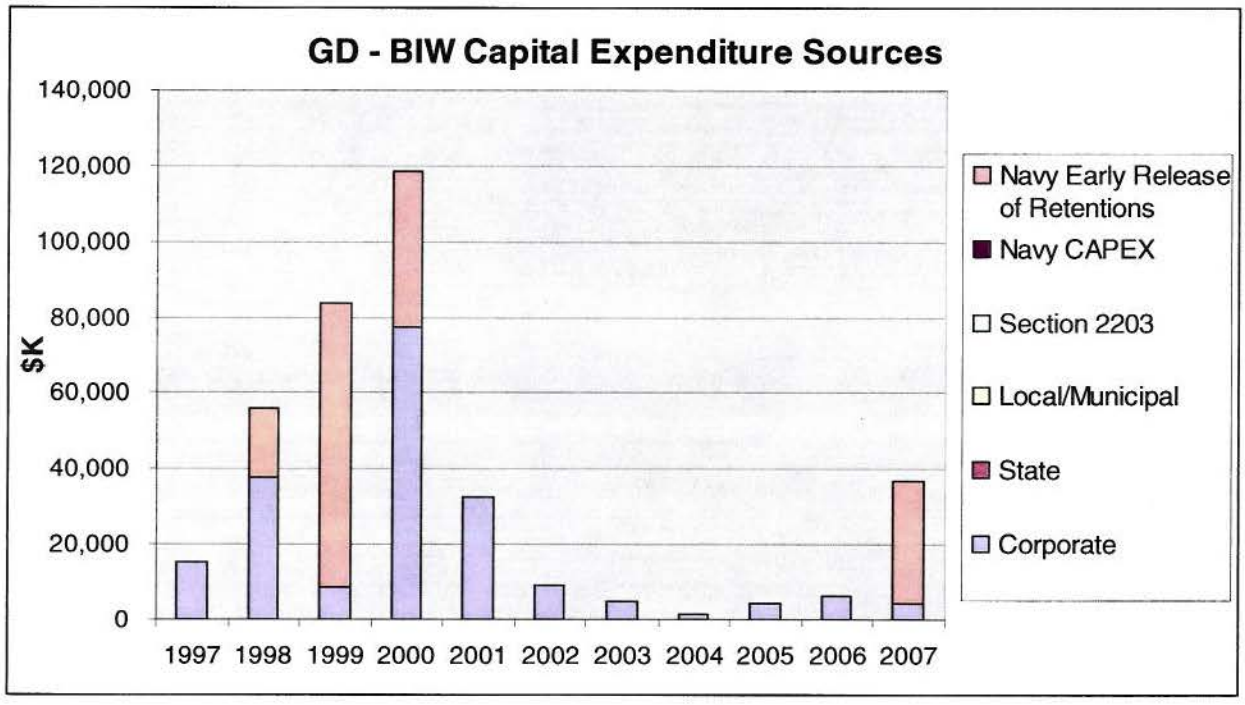




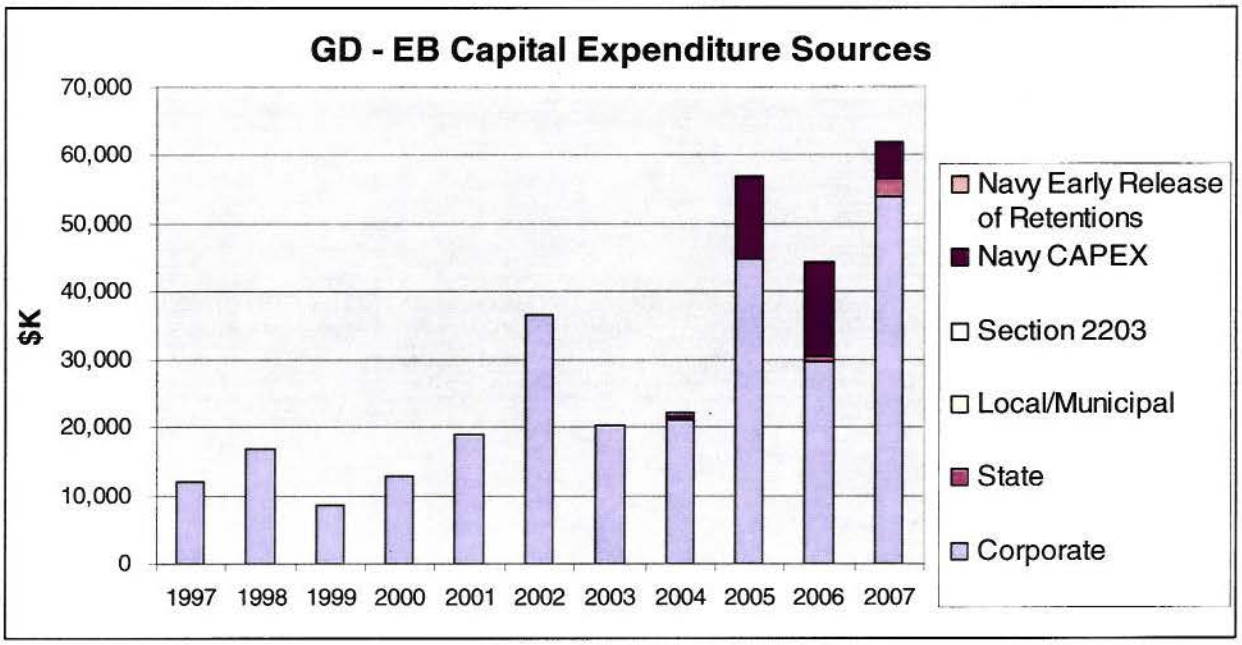
Note: Values for NGSB – GC capital expenditures from 2005 through 2007 include substantial insurance payments resulting from the effects of Hurricane Katrina.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.





This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.



Major Investments in Process Improvements

Below is a listing of major investments in process improvements by the shipbuilders over the past ten years, funded by a variety of sources including in some cases by Navy capital expenditure special contract incentives.

GD BIW Description of Improvements	Period of Investment	Amounts ($K)
Transporter Roadway	1998-1999	$5,000
Land Level Transfer Facility	1997-2001	$248,000
Blast and Paint Building	2001	$13,000
Ultra Hall Building	2006-2008	$36,000
Total BIW Investments in Process Improvements		$302,000

GD EB Description of Improvements	Period of Investment	Amounts ($K)
CCSM Off Hull Assembly and Test Site	1998	$10,348
QP - Material Processing Facility	2000-2003	$12,279
Controlled Industrial Facility (CIF) and Enclosed Storage Area (ESA)	2002-2005	$6,686
One (1) 275 Ton Portal Crane	2003-2004	$7,852
Graving Dock #3 Long Term Repair	2004-2007	$43,208
Light Fabrication Facility	2004-2006	$6,127
35KV Switchgear	2005-2007	$5,369

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Module Transportation and Facilitization Project	2005-2007	$11,678
Quonset Point Coating Facility Project	2005-2007	$9,734
GDs 1 and 2 Long Term Fix	2006-2008	$67,000
Pre-Launch Final Assembly Facility	2007-2009	$18,211
Subtotal Capital Improvements		$198,492
Engineering and Manufacturing Process Improvement Teams (overhead)	1998-2008	$16,754
National Shipbuilding Research Program Efforts (overhead)	1997-2008	$19,354
Information Technology Product Development (overhead)	1997-2008	$24,098
Subtotal Capital Improvements		$60,206
Total EB Investments in Process Improvements		$258,698

GD NASSCO Description of Improvements	Period of Investment	Amounts ($K)
NASSCO Drydock Extension	1998	$23,000
Plate Shop Sub-Assembly Line	1998	$4,000
Table 1 Pin Jig Extension	1998	$2,000
Two 300 Ton Lift Cranes	2000-2001	$20,000
Major Sub-Assembly Area Fabrication	2000-2001	$5,000
Block Assembly LIne	2001-2003	$45,000
T-Beam Profile Fabrication Line	2001-2003	$23,000
Table 11 Upgrades and Cranes	2001	$2,000
Transporters	2002	$1,000
Table 1 Pin Jig Extensions	2002	$1,000
Pipe Shop Automation	2003	$2,000
Manufactured Tees Outfitting Facility	2003	$1,000
L Lane On-Block Outfitting	2006-2007	$3,000
M Lane On-Block Outfitting Expansion	2006-2007	$12,000
Blast and Paint Facility (Civil Construction)	2007-2008	$4,000
Corrugated Bulkhead Assembly Area (with Jigs)	2007-2008	$2,000
TIMSA Facility Improvements including Pipe and Sheetmetal Ops	2007	$2,000
Two Block Transporters for SOC 4 and Blast and Paint	2007-2008	$1,000
Berth 3 and 4 Restorations	2007	$1,000
Mission Valley Facility	2007-2008	$1,000
Total NASSCO Investments in Process Improvements		$155,000

NGSB NN Description of Improvements	Period of Investment	Amounts ($K)
Dry Dock 10 and 11 Walls	2002-2006	$18,100
Covered Modular Outfitting Facility	2003-2006	$34,900
Covered Modular Assembly Facility	2003-2007	$41,300
Heavy Plate Facility - Facility and Equipment	2003-2006	$45,200
Pier 3	2003-2007	$87,800
900 Ton Crane Upgrade	2004-2008	$14,600

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

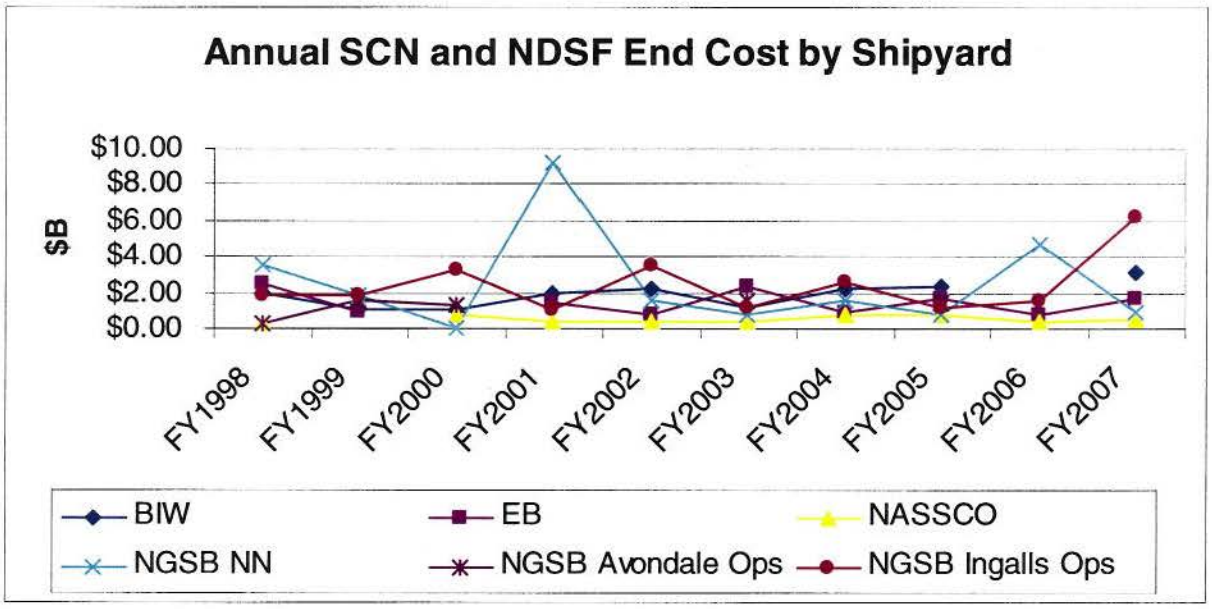
Power Unit Assembly Facility	2007-2009	$33,200
M-290 Loading Facility	2007-2011	$45,000
Total NN Investments in Process Improvements		$320,100

NGSB GC Description of Improvements	Period of Investment	Amounts ($K)
Avondale - Facilities Modernization Program	2004-2010	$70,000
Avondale - Facilities Modernization - State Funded (includes panel line equipment, electrical refurbishment, IT infrastructure, cranes)	2004-2010	$39,000
Pascagoula/Gulfport - Facilities Modernization Program	2004-2010	$84,000
Pascagoula/Gulfport - Facilities Modernization - State Funded (including West Bay Expansion, New Panel Line Bldg, 4160 Power)	2004-2010	$156,000
Pascagoula/Gulfport - Section 2203 Recovery Program (Pascagoula Panel Line, Gulfport Composites)	2006-2010	$86,000
Avondale - Section 2203 Recovery Program (Panel Line Equipment Installation) ***Funding currently on hold by Navy***	2008-2009	$12,000
Total GC Investments in Process Improvements		$447,000

Costs for Related Navy Shipbuilding Projects

Below is a summary of Shipbuilding and Conversion, Navy (SCN) funding and National Defense Sealift Funds (NDSF) as appropriated by fiscal year for ship programs constructed or converted by the major shipbuilders. The summarized costs are reported as end cost in the first year in which full funding was appropriated. For example, for NGSB-NN, the graphic shows approximately $9.2B in fiscal year 2001 which was the year that CVN 77, SSN 776 and CVN 69 RCOH (refueling complex overhaul) were appropriated. However, the funds were expended over a number of years as the contracts were executed. Therefore, the graphic provides the aggregate volume of business going to the major shipbuilders over FY1998-2007.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.



GOVERNMENT FINANCING FOR FACILITIES

Facilities Capital Cost of Money

Facilities Capital Cost of Money (FCCM) is an imputed cost that is an allowable charge to government contracts to recognize costs of contractor capital for facilities investments. This is addressed in Cost Accounting Standards (CAS) 414 entitled *Cost of Money as an Element of the Cost of Facilities Capital* and provides detailed guidance on calculating the amount of facilities capital cost of money due under a specific contract.

Essentially, a contractor's facilities capital cost of money is calculated by multiplying the net book value of the particular business's facilities investment by the applicable cost of money rate which is specified semi-annually by the Secretary of the Treasury under Public Law 92-41, 85 Statute 97. This rate is published in the Federal Register in December (applicable from 1 Jan to June 30) and then again in July (applicable for July 1 through December 31). The resulting amount of facilitates capital cost of money is usually assigned to overhead pools and allocated to specific contracts using the same allocation base used to allocate the indirect costs in the overhead pool.

This allowance directly recognizes "costs" associated with deploying capital assets for performance under government contracts for which the contractor will be paid. Therefore, the more the contractor invests in facilities or capital improvements, the higher the net book value. The higher the book value, the higher the resulting imputed costs allowed to be charged to government contracts. This provides monetary incentive for the contractor to increase productivity and cost reductions through modernization of production facilities.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Depreciation

To operate production facilities effectively and consistently, firms are compelled to invest in major equipment, machinery, buildings, and other capital assets. These capital assets have useful lives of varying length and are used through the operation of the firm's business. Depreciation expensing methods estimate and allocate the acquisition and capital improvement costs of these assets over time or use. These costs of the asset are deducted over the number of years or amount of time that the asset is used.

Depreciation costs are an allowable cost to government contracts and are usually charged through the indirect rates. In some cases, depreciation costs may be charged directly to a cost objective if the charges are based on usage and the costs of all like assets used for similar purposes are charged directly as well. Depreciation is addressed in Cost Accounting Standards (CAS) 409 providing detailed guidance on depreciation. Depreciation, as an allowable cost, provides for the charging of this expense to government contracts and as such does not hinder investments in capital assets but allows for the costs to be recovered.

MECHANISMS AVAILABLE TO GOVERNMENT TO FINANCE OR INCENTIVIZE FACILITIES AND PROCESS IMPROVEMENTS

Contract Incentive and Award Fees

Government shipbuilding contracts are routinely structured with incentive fees and/or award fees, both for cost reimbursable and fixed price type contracts. Incentives and award fees are tools or mechanisms through which the government encourages specific behavior or performance. The Navy has recently implemented a number of different shipbuilding facilities investment incentives. By setting aside ship construction funds to be allocated based on business case justification, these special incentives allow shipbuilders the potential to earn additional fees toward capital and process improvements when proven to be mutually beneficial to both contract parties.

As outlined in the March 2007 Report to Congress on *Assessments of Naval Vessel Construction Efficiencies and of Effectiveness of Special Contractor Incentives*, several ship construction contracts have utilized such contract incentives with demonstrated success, including VIRGINIA Class Block II (Newport News and Electric Boat) and DDG 51 Class (Bath Iron Works) programs. In the case of the VIRGINIA Class Block II contract, the shipbuilder is funded up to fifty percent of the incentive at the start of the improvement, with the remaining fifty percent available upon satisfying criteria defined in contract. Other ship programs utilizing special incentives toward capital expenditure include the CVN 21 Class and DDG 1000 Class programs. In similar fashion, the DDG 1000 contract with BIW allows for adjustments to be made to the "target cost" if specific projects are approved.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Another notable way in which contract incentive fees have been used to finance improvements is through the renegotiation of the contractor share line in an under-run scenario. Fixed price incentive and cost plus incentive fee contracts contain "share lines" for when the costs attributed to the contract come in above or below the negotiated "target cost." When the contractor is below the target cost, the excess funds set aside are shared at the ratio negotiated. When the negotiated share ratio is 50/50, each dollar that the contract cost is below the target cost is split evenly. However, through contract re-negotiation only when the business case demonstrates overall savings to the Navy, that ratio can be adjusted more favorably for the contractor, provided the contractor commits to investing that extra profit toward financing improvements, as has been done successfully with BIW on the DDG 51 ship construction program.

Progress Payment Provisions

Both the Federal Acquisition Regulation (FAR Subpart 32.5) and specific Navy regulations address how progress payments are to be distributed for shipbuilding contracts. In general, contractors are paid upon demonstration of physical completion and costs incurred, while the Navy retains some remainder of funding (i.e., retentions) to ensure completion of contract deliverables and expectations. However, in certain circumstances, the Navy has authorized the early release of contract retentions. Contract retentions are meant as monetary leverage over the shipbuilder to obtain a fully compliant ship delivery, but for purposes of providing cash flow to support shipyard investment, early release of contract retentions can be a timely, real stimulus from a corporate perspective.

Several shipbuilders have benefited from investments supported in part or wholly through the early release of contract retentions. This approach was used through the DDG 51 Program at General Dynamics' Bath Iron Works. Two projects that have utilized this mechanism are the Land Level Transfer Facility and the Ultra Hall Facilities. For the Land Level Transfer Facility, BIW took advantage of early release of contract retentions from multiple DDG 51 construction contracts to assist in funding the $248M project. In addition to early release of contract retentions, BIW also incorporated a three-part tax incentive provided by the State of Maine and the City of Bath along with special contract incentives upon completion of the project, and returns from the Navy from Facilities Capital Cost of Money (FCCM, discussed previously). For the Ultra Hall Facilities modernization project, the Navy approved the early release of contract retentions to assist BIW in funding the construction of the larger pre-outfit bays. The project was also aided by the Navy through adjustments to the contract's incentive fee structure and other contract terms and conditions.

Another program that has recently taken advantage of an early release of contract retentions is the T-AKE Dry Cargo/Ammunition Class Ships built at General Dynamic's NASSCO shipyard. The Navy responded to a business case proposal involving an accelerated release of retentions and the lease of abutting federal land to proceed with a major physical reconfiguration of shipyard capabilities and the addition of new blast and paint facilities, increasing capacity and reducing costs. The land lease, comprising approximately five acres

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

from Naval Base San Diego, allows NASSCO to expand its footprint while making the necessary investments to the existing structures. Achieved savings to Navy shipbuilding programs resulting from this effort will be shared equally between the Navy and General Dynamics.

State and Federal Tax Provisions and Tax Incentives

Northrop Grumman and General Dynamics have frequently partnered with both the shipyards' states and localities to fund various capital expenditure projects. These partnerships use a variety of financial and legal mechanisms, ranging from access to low interest loans and bonds to tax exemptions, tax credits, or in some cases appropriated funds. Hurricanes Katrina and Rita damaged a number of shipbuilding facilities including the Northrop Grumman shipyards of Avondale and Ingalls, and as a result, numerous fiduciary arrangements at the federal, state and municipal level were implemented to mitigate the effects on industrial capacity.

As discussed previously for the Land Level Transfer Facility, General Dynamic's Bath Iron Works has entered into arrangements with the State of Maine for state income tax credits and rebates from the Maine Business Equipment Tax Rebate program and with the city of Bath for property tax exemptions.

The National Shipbuilding Research Program

Developed in 1998 at the Navy's request, the National Shipbuilding Research Program (NSRP) is a collaboration of 12 U.S. shipyards focused on industry-wide implementation of solutions to common cost drivers. The program targets solutions to priority issues identified by industry, in concert with the Navy shipbuilding community, and undertakes R&D efforts that exhibit a compelling business case to increase warship affordability by improving U.S. shipbuilding and ship repair efficiencies.

NSRP's hallmark is rapid, widespread implementation of R&D results on Navy programs: cross-yard and cross-tier, across varied technology areas, and long before projects complete – even at yards that were not on the project team. Over 77% of NSRP's major projects have already been implemented in at least one shipyard – most at multiple yards -- and CEOs assert that the Program enables them to make improvements for a fraction of the cost of going it alone.

Shared investment efforts between the Navy and our industry partners are guided by such documents as reports from the Office of the Secretary of Defense (Industrial Policy)-sponsored global shipbuilding industrial base benchmarking study in 2005-2006 and the NSRP Strategic Investment Plan - a statement of work reflecting consensus national priorities as determined by platform-independent manufacturing cost drivers.

The NSRP framework efficiently coordinates collaborative R&D among all segments of the ship construction and repair enterprise to reduce the cost and time required for both Navy and

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

commercial ship construction, conversion, and repair. Annual Navy seed funding acts as a catalyst, while NSRP organizational constructs provide the legal safeguards that enable shipyards to collaborate extensively across corporate boundaries. Industry investment exceeds the Navy funding because large teams share in the initial costs of joint evaluation and experimentation and each yard pays the more substantial costs of implementation and capital investment after the risk is reduced.

NSRP sponsored efforts have produced many benefits for the Navy and the shipbuilding industry:

- The Common Parts Catalog has increased part commonality among Navy ships and submarines and has reduced the total number of parts required to build and maintain our fleet.
- The NSRP is supporting the Navy's Documents for Ship Cost Reduction initiative to analyze Navy specifications for cost reduction opportunities within the shipbuilding community.
- The Navy Product Data Initiative has developed a draft specification for Integrated Program Data Environment (IPDE) requirements to enable data interoperability to support Navy shipbuilding programs. When implemented, this specification will reduce the amount of rework needed every time design, analysis and production data is transferred from one system or shipyard to another, and allows interoperability between the Navy and the shipbuilders. This will enable reduced costs and cycle times during acquisition.
- The Shipbuilding Partners and Suppliers (SPARS) project introduced e-Business capabilities to the shipbuilders and their suppliers. This automated the development and review of many documents that have to go through numerous approvals within the organizations involved (e.g., Request for Quotes, Vendor Furnished Information).

Other efforts that were very successful include:

- Advanced welding techniques to reduce distortion and increase productivity,
- Implementation of "Lean" concepts and practices in shipbuilding and ship repair,
- Introduction of laser technologies for steel processing,
- Design for Production,
- Portable Automated Plate Straightener, and
- Worker's Compensation Cost Reductions.

The NSRP collaboration has enabled the shipbuilding industry to speak with a unified voice in providing sound technical input to new regulations under consideration by OSHA, the EPA and others. This reduces the potential costs associated with the new regulations, while preserving adequate personnel safety and environmental protections. The NSRP has generated many diverse benefits to the Navy and industry, and these benefits have been realized across the ship design, shipbuilding, and ship maintenance/repair communities.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

Project ideas can be submitted for funding consideration under four categories: (1) larger, multi-year efforts are solicited by an annual Research Announcement (RA Projects); (2) smaller projects up to $100K are initiated by an annual, informal RFP sent to the NSRP Technical Panels (Panel Projects); (3) special projects that address urgent or critical issues can be proposed for consideration: and (4) the NSRP Program Office in NAVSEA sponsors shipbuilding and ship repair related Small Business Innovative Research (SBIR) Topics. The first three types of proposals are all evaluated and selected by the NSRP's Executive Control Board (ECB), which is made up of senior executives from the member shipyards. The shipbuilding and ship repair related SBIR Topics go through the standard Navy SBIR evaluation and selection process.

Other Mechanisms Available

The Navy, in conjunction with other federal agencies, has a variety of other mechanisms available to stimulate investments and encourage process improvements. Below is a synopsis of the key areas of specific utility to the shipbuilding environment:

Direct Infrastructure Improvement Funding – The unique provisions of Section 2203 of Katrina Supplemental IV (Public Law 109-234) authorized not less than $140 million toward infrastructure improvements at Gulf Coast shipyards damaged by Hurricane Katrina in 2005. Based on projects submitted by various area shipyards, funding was provided toward projects such as new panel lines, a new composite structures facility, pier improvements and improved flood-proofing. Participating sites included the major shipyards of NGSB Pascagoula and New Orleans Operations as well as smaller facilities at Austal, Swiftships, Textron, Atlantic Marine and Seemann Composites, Inc. (SCI).

Title XI Ship Loan Guarantee Program – A Department of Transportation program administered by the Maritime Administration (MARAD) provides for guarantees by the U.S. Government of debt obligations issued by:

- U.S. or foreign ship owners for the purpose of financing or refinancing either U.S. flag vessels or eligible export vessels constructed, reconstructed or reconditioned in U.S. shipyards, and
- U.S. shipyards for the purpose of financing advanced shipbuilding technology and modern shipbuilding technology of a privately owned general shipyard facility located in the U.S.

As a result of long-term financing with attractive terms, Northrop Grumman (Pascagoula Operations) and General Dynamics (NASSCO) have utilized this program to support the funding of facilities improvement projects.

Manufacturing Technology Program (ManTech) – As an extension of the DoD-level program, the Navy ManTech Program is a viable and proven method of applying resources to invest in the development of new methods, products, processes and capabilities with applicability to the Navy shipbuilding and warfare enterprises. Administered by the Office of Naval Research

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

(ONR) in conjunction with the Program Executive Offices and Systems Commands, the program has three main technology thrust areas:

- Metals Processing and Fabrication,
- Composites Processing and Fabrication, and
- Electronics Processing and Fabrication.

Although funded internally within DoD appropriations, collaboration involves private industry to a great extent in both the development of active projects as well as in capital investments made to participate in pilot programs and to implement program results. In addition to managing and transferring multiple projects through to industry for direct military application, the program also maintains several Centers of Excellence to facilitate manufacturing advances and share best practices across programs and product lines.

Stable Shipbuilding Plan – Another method vital to creating the conditions necessary to stimulate investment and encourage continuous improvement in the Nation's shipyards is to maintain a clear, focused message of the priority the Navy and the Congress place on Naval vessel recapitalization. Stability and predictability enhance the Government's efforts to convince our industry partners to reinvest and continue to strive to compete at a world-class level. Testimony to the House Armed Services Committee, Seapower and Expeditionary Forces Subcommittee of March 20, 2007, highlighted a number of actions that the Navy, the shipbuilders, and the Congress could do to help to stabilize the industrial base. Foremost of the Navy actionable recommendations is promoting acquisition strategies that enhance cost reduction such as multi-year procurement, open architecture and commonality, and encouraging facilities and process improvements through steady workload and a variety of contract incentives.

POTENTIAL SHIPBUILDING INVESTMENTS

It is the objective of the Department, through special contract incentives, maximum use of fixed price contracts and performance-based specifications, to establish and foster a positive environment for corporate investment. To the extent possible, the Navy believes improvements are best realized in a competitive environment. Combined with the stated goals of the Department to embark on an aggressive and committed path toward major recapitalization of the fleet, as reported annually to Congress in the Thirty Year Shipbuilding Plan, we feel that industry has, and will continue to have, sufficient impetus to invest and to improve on their facilities, technologies, processes and people.

When competition is absent or limited, the Navy has and will continue to work with our private industry partners to identify and share the risks and rewards of investments in shipbuilding capability. But rather than propose cost-benefit analyses on projects outside the context of their procurement contracts, it is the position of the Navy to continue to review and commit to projects under the prescriptive mechanics of those contracts. With established and functioning capital expenditure contract clauses in place on the Virginia Class Submarine, CVN-21 Aircraft Carrier and DDG-1000 Destroyer construction contracts, initiating and

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

communicating projects via separate conveyance such as this report could obfuscate the plans or timing of proposals.

NAVY'S STRATEGY FOR PROVIDING INCENTIVES

It has been a major priority of the Department to pursue innovative and sustainable strategies to reduce life-cycle costs of our ships and submarines. Through the positive elements of competition, greater use of contract incentives, such as multi-year procurements, stability in the shipbuilding plan, commonality,and fixed price contracts (when and where appropriate), the Department has been actively and rigorously working to provide the Fleet with the right ships at the right costs. As noted in the 2000 and 2005 *First Marine International Global Shipbuilding Industrial Base Benchmarking Studies*, U.S. shipyards have areas where capital investment would be beneficial and prudent.

The Navy has repeated evidence that the greatest strides in innovation and the best conditions for shipyard investment are in the context of competition. In the ideal state, corporations are self-incentivized to make sound judgments on long term strategies to become more efficient and more capable. Unfortunately, in a prolonged period of reduced demand both in the public and private U.S. shipbuilding industry, consolidation has strained that source of motivation. But with the exception of aircraft carriers, and to some extent submarines, opportunities continue to exist to promote competition.

When competition alone has been insufficient to adequately motivate and stimulate investment and improvements at the major shipyards, the Navy has been actively pursuing and exercising mechanisms to provide incentives for capital expenditures. The confluence of multi-year procurements and contractual special incentives for capital expenditures has proven to be an effective environment to engage positively with the shipyards. In addition to that foundational combination, the Navy intends to continue to apply the full complement of mechanisms already available. In that light, the logical next step is to build upon the methods that have shown the most success while maximizing their effectiveness.

Therefore, the Department's strategy moving forward focuses on three main pillars:

- Standardizing our best practices for contracting methods;
- Managing shipbuilding efforts corporately; and
- Optimizing information exchange.

The first pillar takes into consideration our objectives involving the establishment of consistent methodologies for providing incentives for capital expenditure and process improvement where deemed beneficial from a cost-benefit perspective. Aside from facilities capital cost of money, codified in the Cost Accounting Standards and applied relatively

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

uniformly across contracts, most of the other mechanisms have yet to be clearly understood, defined and standardized across ship program offices and contract officers. Shipbuilding is by no means a one-size fits all business model, but despite unique aspects of each program and shipyard, and the fact that each application of a mechanism is but one aspect of a large and complex set of negotiations, nevertheless by clarifying the Department's priorities and objectives and clearly communicating effective contract incentive clauses and structures, we should be able to better capitalize off of past successes. Along the same lines, standardized methods are also being pursued for business case analyses and other costing mechanisms inherent in special incentive clauses.

The second pillar involves the Navy's posture relative to the corporations with primary stakes in shipbuilding. With industry consolidation leading to the six major shipyards falling under two corporations, Northrop Grumman and General Dynamics, few opportunities for natural competition present themselves in the Navy shipbuilding environment. Therefore the Department will need to leverage cost savings and value creation on the basis of broader business arrangements across contracts and shipyards. And with more business on the table, leverage from more competitive contracts can be levied against less competitive contracts. Additionally, since to the extent allowable our corporate partners act in their best interest across contracts and shipyards, the Navy is working on strategies to behave in that context as well.

One of the ways that the Navy can increasingly manage across programs and in a more corporation-centric mindset is through the management structure of the Program Executive Offices (PEOs). PEOs are comprised of multiple ship program offices, and are the first managerial linkage from one program office to the next. But in order to do so, the performance results of the Program Managers need to be measured in such a way as to create the space to make the trade-offs between what is advantageous for their individual program versus what is advantageous for the larger enterprise. This extends beyond the acquisition community and into the requirements and resources spheres of influence as well.

In concert with the second pillar objective of a broader, more corporately minded view across programs is the need for stable ship procurement plans. If the Navy is to be successful in drawing the major corporations into a more competitive, innovative attitude toward future contracts, the Navy also has to be able to demonstrate a viable, long-term recapitalization plan with credibility and consistency. Industry cannot adequately invest in businesses that do not present real and sustainable value creation for their shareholders, and to the extent that the nation can predict and present a thoughtful, predictable growth pattern, we will strive to do so.

The third pillar involves information exchange. With diminishing talent retiring from the ranks of the civilian corps, and with the accelerating rate of new projects, methods and technologies, capturing and sharing successes and best practices is not only vital to addressing the staggering challenges of recapitalizing the fleet, but essential to enabling the first two pillars of this strategy. One methodology in place today is the quarterly Ship Acquisition Forums. Chaired by the Deputy Assistant Secretary of the Navy for Ship Programs, the forums allow

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

sharing of best practices and cross-program review and analysis. Especially valuable in this endeavor are peer reviews of contract and acquisition strategies prior to execution.

Another way that the Navy intends to leverage knowledge transfer while bolstering the consistency of our contracting methods is through implementation of a competency aligned organization. Competency alignment is an ongoing initiative of the Navy Systems Commands by which each area of specific knowledge or competence is organized and coordinated as a consolidated community. The contracting competency is actively managing its human resources as well as its best practices and processes to standardize across geographic and product areas.

As testament to the importance placed on revitalizing and recapitalizing the Navy's acquisition workforce, the Assistant Secretary of the Navy for Acquisition, Research and Development recently created a new Principal Civilian Deputy position with the primary focus of stemming the tide of human capital and closing the knowledge gap in areas critical to acquiring the future Fleet.

Through diligent execution of the three pillars outlined above, the Navy is confident in our ability to provide the incentives necessary to lead the industrial base of this great nation forward to meet the current and future recapitalization challenges we face. In an atmosphere of segmented competition but with a back drop of increasing demand, the major shipbuilders actively engaged in keeping America's Navy number one in the world should have the opportunity to provide meaningful return on investment while contributing to the Nation's defense.

This document contains commercial proprietary information, or trade secrets, that is exempt or prohibited from public disclosure under the Freedom of Information Act, Exemption (b)4, and/or the Trade Secrets Act. Do not reproduce, display or further distribute this document, or parts thereof, without authorization from the Navy originator.

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

ACTION MEMO

September 11, 2008

FOR: SECRETARY OF THE NAVY

FROM: BJ Penn, Assistant Secretary of the Navy (I&E)

SUBJECT: 15 SEPTEMBER REPORT TO CONGRESS ON GUAM PLANNING

- TAB A contains the cover letters to the members of Congress requesting the report. TAB B is the draft report to Congress on the status of planning for the Guam realignment. TAB C is the excerpt from House Report 110-424 tasking DoD for this update to Congress.

- The report is due to Congress on 15 September, 2008.

- The report has been staffed throughout DoN and the Guam Executive Council Stakeholder Working Group, to include OSD-P, OSD- PA&E, OSD-C, and OSD-ATL; specific personnel are identified on TAB C - Coordination.

RECOMMENDATION: SECNAV sign the cover letters in TAB A, approve TAB B and forward the report to Congress.

COORDINATION: TAB D

ATTACHMENTS:
As stated

Prepared by: Captain William Horton, Joint Guam Program Office, 703-602-8251.

15 SEP 08

AASN
MS

* INCLUDE SIGN DRAFT AS WORKING DOCUMENT IN TLY

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Inouye, Murtha, Byrd, Johnson, Edwards, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Skelton, Inouye, Murtha, Byrd, Johnson, Edwards, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Skelton, Inouye, Levin, Byrd, Johnson, Edwards, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Murtha, Byrd, Johnson, Edwards, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable David Obey
Chairman, Committee on
Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, Johnson, Edwards, Akaka, Ortiz and Byrd. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Robert C. Byrd
Chairman, Committee on
Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, Johnson, Edwards, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515-4317

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, Johnson, Byrd, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-4104

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, Edwards, Byrd, Akaka, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Daniel K. Akaka
Chairman, Subcommittee on Readiness
and Management Support
Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, Byrd, Johnson, Edwards, Ortiz and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John Thune
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 15, 2008

The Honorable Solomon P. Ortiz
Chairman, Subcommittee on Readiness
Committee on Armed Services
House of Representatives
Washington, DC 20515-4327

Dear Mr. Chairman:

As directed by the Explanatory Statement of the Consolidated Appropriations Act, 2008, the enclosed report provides the status of the Department of Defense's planning on Guam.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, Byrd, Johnson, Edwards, Akaka, and Obey. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable J. Randy Forbes
Ranking Minority Member

REPORT ON DEPARTMENT OF DEFENSE PLANNING EFFORTS FOR GUAM

15 Sep 2008

TABLE OF CONTENTS

TABLE OF CONTENTS.....2

REQUIREMENT.....3

BACKGROUND.....4

PLANNING EFFORTS ON GUAM.....7

1. Process.....7
2. Size and Make up of Military Force Increases and Dependents.....8
3. Infrastructure Requirements.....10
4. Plan to Accomplish Construction.....15
5. Plan to Support Construction Workforce..... 17
6. Updated funding plan for MILCON and Family Housing Construction and Associated Defense Education/Logistics Infrastructure.....19
7. Status of availability/funding mechanism for Government of Japan contributions.....20
8. Conclusion.....21

REQUIREMENT

Explanatory Statement of the Consolidated Appropriations Act, 2008, directed the Secretary of Defense to submit a report on the Department's planning efforts on Guam to the Committees on Appropriation of both Houses of Congress. The report language stated that the submission should include:

-- Details on the size and make up of military forces to be located on Guam.
-- Number of dependents expected to accompany the forces.
-- Infrastructure required to support both the forces and their families.
-- Updated funding plan for Military Construction and Family Housing Construction including the Defense related education and Defense logistics infrastructure needed.
-- Plan to accomplish the construction associated with the buildup within the constrained construction capacity on Guam including addressing the infrastructure required to support the anticipated increase in the workforce.
-- Status report on the availability and funding mechanism of the $6.09 billion that the Government of Japan has agreed to contribute. This includes $2.80 billion in direct cash contributions, $740 million in financial instruments to assist with utility infrastructure, and $2.55 billion in financial instruments to fund a housing public/private venture.

BACKGROUND

Planned force posture development on Guam is important to our national security interests, particularly our strategy for global defense posture realignment. As the westernmost U.S. territory for basing in the Pacific, Guam provides strategic flexibility and freedom of action to support peace and wartime engagement, including crisis response and theater security cooperation. With its geo-strategic location, Guam supports:

- Force projection capabilities from CONUS and Hawaii;
- Alliance transformation efforts; and
- Defense cooperation and contingency support in surrounding regions.

Capabilities being developed on Guam will strengthen the stand-off deterrent effect of U.S. forces regionally and will assure regional allies and partners of continued U.S. forward presence. These capabilities include:

- Forward-basing submarines to increase availability in the Western Pacific;
- Establishing a hub for airpower and strike projection regionally and globally and for intelligence, surveillance and reconnaissance (ISR) assets; and
- Sustaining logistical support, prepositioned equipment and materials, and en route mobility capacity for flexible response and surge of U.S. forces in contingencies.

Development of Guam force posture also supports theater security cooperation and partner capacity building. Training facilities on Guam and neighboring islands will enable increased bilateral and multilateral training and exercises with regional partners. Additionally, Guam's role as an ISR hub offers opportunities to increase international cooperation in this mission area.

The relocation of approximately 8,000 III Marine Expeditionary Force personnel and their dependents from Okinawa to Guam will also strengthen the U.S.-Japan Alliance relationship. This relocation, which is part of an interconnected set of realignments of the U.S. force posture in Japan, and which is supported by over $6 billion of Government of Japan funding, will

reduce the U.S. presence in Okinawa and allow the U.S. to consolidate its remaining forces on Okinawa, enabling the return of significant land areas in the more densely populated southern part of Okinawa. The development of Guam will also support increased bilateral training with Japan Self-Defense Force units on rotation to Guam.

The net effect of force posture realignments on Guam will be strengthened military capability and improved political stability in the Pacific. The Department of Defense, with this end in mind, directed Commander, U.S. Pacific Command (PACOM) to evaluate required capabilities in its area of responsibility and direct the flow of forces for the rebasing effort to ensure that required readiness is maintained. The resultant evaluation identified five long-term initiatives that will increase U.S. military presence on Guam that are proceeding, or under consideration, almost concurrently:

- U.S. Air Force's Airborne ISR Strike Task Force initiative
- U.S Air Force's Northwest Field training initiative
- U.S. Navy's Aircraft Carrier (CVN) Transient berthing
- U.S. Army's Ballistic Missile Defense Task Force
- USMC's III Marine Expeditionary Force (MEF) relocation from Okinawa, Japan

A specific Service description of these initiatives is detailed below:

Air Force: The Pacific Air Forces (PACAF) has recently completed planning efforts on two strategic force initiatives, the ISR Strike initiative and the Andersen Air Force Base Northwest Field training initiative. Construction has already begun on RED HORSE facilities at Northwest Field. The ISR Strike Task Force will combine stealth and advanced weapons with an integrated command, control, intelligence, surveillance, and reconnaissance capability (Andersen Air Force Base (AAFB) General Plan). The mission assets that will support this Task Force include permanently stationed RQ-4 Global Hawk, a high endurance Unmanned Aerial Vehicle (UAV). The Northwest Field training initiative consists of relocating and consolidating PACAF's expeditionary training centers from the Korean Peninsula to Guam. The unit moves include the RED HORSE Squadron and the Commando Warrior, Combat Communications, and Silver Flag training schools.

Navy: A CVN aircraft carrier is planned to conduct frequent transient visits to Guam beginning 2019. The concept of operations includes up to three transient visits each year for up to 21 days for each visit. Up to 50 aircraft from the Carrier Air Wing (CVW) could fly off and bed down at AAFB during the transient visits. The CVN will require cold iron utilities at its berth. Any maintenance required for the CVN would be provided by fly-away teams from Hawaii or the west coast of the U.S. The National Environmental Policy Act (NEPA) analysis for this effort is included in the NEPA for the relocation of the Marines from Okinawa to Guam.

Army: Army is setting conditions to introduce an Air and Missile Defense (AMD) capability in Guam. Composition of the AMD Task Force (TF) may include a battalion-size AMD TF to include Headquarters & Headquarters Battery (HQs/HHB), Terminal High Altitude Area Defense (THAAD) Battery, Patriot Battery, Surfaced-Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM) or Avenger Battery, Sentinel Section, and a Direct Support Maintenance Company. The optimum concept of operations for the AMD TF is to locate the facilities complex as close as possible to the potential emplacement sites.

Marine Corps: Pursuant to the Realignment Roadmap agreement of May 1, 2006 between the U.S. Government and the Government of Japan (GoJ), released at the Cabinet level by the U.S.-Japan Security Consultative Committee, the Marine Corps will relocate approximately 8,000 Marines and their 9,000 dependents to Guam. Under this agreement the two governments will share the estimated $10.27 billion cost of facilities and infrastructure improvements necessary to support the relocation. The GoJ agreed to fund a maximum of $6.09 billion. This includes $2.80 billion in direct cash contributions, $740 million in financial instruments to assist with utility infrastructure, and $2.55 billion in financial instruments to fund a housing public/private venture. The United States will fund the remaining costs. These funds will support the movement of the III MEF including command, air, ground, and logistics elements. NEPA analyses commenced in March 2007.

U.S. – Japan Cost Sharing for the relocation of USMC in Okinawa to Guam
(U.S. – Japan Roadmap for Realignment Implementation, May 1, 2006)

	Cost Item	Estimated Costs	GOJ share	USG share
		$B	$B	$B
GOJ & USG Direct Cash Contribution	Operational Facilities, Barracks, QOL Facilities, etc	5.98	2.80 *1	3.18
PPP Financing by GOJ	Family Housing	2.55	2.55 (Recoverable 2.10) *2	0.00
	Associated Utilities	0.74	0.74 (Recoverable 0.74)	0.00
USG Funding	Military Support Highway	1.00	0.00	1.00
	Total	10.27	6.09	4.18

*1) Consists of construction costs for General administrative buildings, Instruction buildings, Barracks and QOL facilities (including on-base infrastructure for above-mentioned facilities)
*2) Consists of $1.5 billion in cash equity and $0.6 billion in loans

PLANNING EFFORTS ON GUAM

1. Process

Currently the Air Force and Navy have a large presence on Guam and oversee significant land and facilities in support of existing missions. Because of significant changes planned for military loading on Guam, the Department of Defense is currently developing the Guam Joint Military Master Plan (GJMMP). This joint military master plan outlines increases in force structure and associated facilities development related to the relocating forces, vice the presence of existing military personnel.

2. Size and Make Up of Military Force Increases and Dependents

As requested, Table 2-1 summarizes the end strength increases by Service. Table 2-2 provides unit level details for each Service's planned unit relocations. Timelines for the relocations of these forces will be tied to the facilities construction schedule currently under review within the Department. Once timelines are approved, additional breakdowns of personnel can be provided by fiscal years.

Table: 2-1 Military Force Increases and Associated Dependents

Service	Major Element	Approx # of military personnel	Approx # of dependents
Air Force			
	ISR Strike Task Force	120	210
	Transients *	1780	
Navy			
	CVN Transient*	5600	
USMC			9,000
	Command Element (CE)	3050	
	Ground Command Element (GCE)	1100	
	Aviation Command Element (ACE)	1850	
	Logistics Command Element (LCE)	2550	
	USMC Transients*	1200	
	Other Military transients*	800	
	Installation support staff	70	
Army			
	AMD Task Force	630	950
Total	(w/o) Transients	11,370	10,160
* Transients are personnel temporarily deployed. They are not entitled to benefits associated with Permanent Change of Station.			

Table: 2-2 Additional Force Unit Level Details

Service	Major Element	Unit
USMC	CE	
		7th Communications Bn
		3rd Intelligence Bn
		III MEF Headquarters Group
		III MEF Band
		5th Air Naval Gunfire Liaison Company
		Force Reconnaissance Elements
		Installation Support
	GCE	
		3rd Marine Division HQ
		3rd Marine Division HQ Bn
		12th Marine Artillery Regiment HQ
	ACE	
		1st Marine Air Wing HQ
		Marine Wing Headquarters Squadron 1
		Marine Medium Helicopter Squadron
		Marine Air Control Group 18 HQ
		Marine Wing Control Squadron 18
		Marine Air Control Squadron 4
		Marine Air Support Squadron 2
		Marine Tactical Air Control Squadron 18
		Stinger Battery
		Marine Wing Support Group 17 HQ
		Marine Wing Support Squadron Det
	LCE	
		3rd Marine Logistics Group HQ
		Combat Logistics Regiment 35 Det
		Combat Logistics Regiment 37 (-)
		Combat Logistics Regiment 3 Det
		9th Engineer Support Bn (-)
	Transients	
		Infantry Bn
		Artillery Bty
		Composite Squadron
	Other transients	USMC, DoD, Allied countries
Air Force		
	ISR Strike Task Force	
		Global Hawk

Service	Major Element	Unit
		Bombers
		Refuelers
	NW Field Training	
		RED HORSE Civil-Engineering Squadron
		Commando Warrior
		Combat Communications
	Transients	B52, B1, B2 Squadrons
Army		
	AMD TF	
		HQs/HHB
		Terminal High Altitude Air Defense Btry
		Surfaced-Launched Advanced Medium Range Air-to-Air Missile /Avenger Bty
		Sentinel Section
		Direct Support Maint Co
Navy		
	CVN (transient)	Ship's Company
		Carrier Air Wing (CVW)

3. Infrastructure Requirements

Air Force: PACAF recently completed planning efforts to establish two strategic force initiatives, the ISR Strike Task Force, and the Northwest (NW) Field Expeditionary Combat Support Campus moves.

The ISR Strike Task Force will combine stealth and advanced weapons with an integrated command, control, intelligence, surveillance, and reconnaissance capability (AAFB General Plan). The mission assets required to support this Task Force include the permanently stationed RQ-4 Global Hawk, a high endurance unmanned UAV. Key strategic decisions on the concept of operations for the ISR program are under review by PACAF and Air Force leadership. The Amended FY11 Program Objective Memorandum will reflect revised facility requirements for a Guam Forward Operating Location. The NW Field unit moves consists of consolidating PACAF's expeditionary combat support capabilities (RED HORSE, Commando Warrior, and Combat Communications) relocating from the Korean Peninsula, and consolidating the units' associated expeditionary training function with PACAF's civil engineering contingency training (Silver Flag) function

relocating from Kadena AB, Japan, to a single viable location.

The Air Force began development of the Expeditionary Combat Support Campus in FY06 through a combination of Military Construction (MILCON); and Sustainment, Restoration and Modernization (SR&M) construction projects by contract and troop labor. The ISR Strike Task Force funding began with an FY07 MILCON project to construct a Global Hawk Operations and Maintenance Complex with a projected completion of May 2009. Facility requirements are estimated to continue in FY10 with infrastructure projects necessary to support an initial build-out of higher priority aircraft maintenance facilities along the south ramp of the airfield (general purpose hangars, clear water rinse, and fuel cell maintenance).

General facility requirements to address the ISR Strike Task Force include facilities for general aircraft maintenance (fuel cell, general purpose hangars, and a clear water rinse facility), associated maintenance back shop facilities (corrosion control and composite repair), munitions maintenance facilities (precision guided munitions and conventional munitions maintenance), combat support facilities (a dining facility and visiting quarters), and necessary supporting infrastructure (airfield payments and utility distribution systems).

Facilities required for the NW Field Expeditionary Combat Support include administrative facilities for operations and command, warehousing, maintenance and supply facilities integral to wartime deployment preparation, combat skills training and classroom facilities, a satellite dining facility, and student dorms.

Table: 3-1 Air Force Facility Requirements

FACILITY TYPE	FACILITY CATEGORY	REQUIREMENT (SF)
Operational	100	**7,791,000**
Maintenance	200	**744,000**
Supply/Storage	400	**87,000**
Medical/Dental	500	0
Administrative	600	**27,000**
Housing/Community	700	**710,000**
TOTAL		**9,359,000**

Navy: The concept of operations will include up to three transient aircraft carrier visits each year for up to 21 days for each visit. Up to 50 aircraft from the CVW could fly off the ship and bed down at Andersen AFB. The CVN will require cold iron utilities at its berth. Any maintenance required for the CVN will be provided by fly-away teams from Hawaii or the west coast of the U.S. mainland.

General facility requirements for the transient visits include a general purpose berthing wharf, a port operations building, a laydown area in support of the port operations building, and a laydown area for Morale, Welfare, and Recreation (MWR) temporary structures. Roadway improvements and a bus staging area are also required for the efficient movement of Sailors from the wharf area to other MWR facilities.

Table: 3-2 Navy Facility Requirements

FACILITY TYPE	FACILITY CATEGORY	REQUIREMENT (SF)
Operational	100	10,000
Maintenance	200	0
Supply/Storage	400	0
Medical/Dental	500	0
Administrative	600	0
Housing/Community	700	12,000
TOTAL		**22,000**

Marine Corps: Consistent with PACOM requirements and fundamental USMC operational concepts, III MEF will provide balanced capabilities among three principal force concentrations located in Okinawa, Guam and Hawaii. Training in various venues will maintain interoperability of the dispersed III MEF elements. III MEF will shift its command element to Guam, but the logistic support hub will remain on Okinawa.

General facility requirements that address Marine Corps needs include administration, storage, training, shops, hangars and quality of life facilities. Basic Facilities Requirements and detailed site plans are still being developed for both U.S. funded MILCON and GoJ Direct Cash Contribution funded MILCON projects. Details on Department of Defense education and logistics requirements are being developed. Approximate types and sizes of facilities needed overall include:

Table: 3-3 Marine Corps Facility Requirements

FACILITY TYPE	FACILITY CATEGORY	REQUIREMENT (SF)
Operational	100	420,000
Maintenance	200	1,200,000
Maintenance Hangars	200	130,000
Supply/Storage	400	2,400,000
Medical/Dental	500	60,000
Administrative	600	1,300,000
Community	700	1,600,000
Training	1711	210,000
TOTAL		**7,320,000**
Housing - family		3,520 units
Housing - BEQ		3,400 rooms
Housing - BOQ		400 rooms

Army: Composition of the AMD Task Force may include a battalion-size AMD TF to include Headquarters & Headquarters Battery, THAAD Battery, Patriot Battery, SLAMRAAM or Avenger Battery, Sentinel Section, and a Direct Support Maintenance Company. The component makeup of personnel is to be determined, but for planning purposes it has been assumed that personnel would be active duty personnel permanently stationed on Guam.

The optimum concept of operations is to locate the headquarters complex, tactical vehicle maintenance facility, family housing and barracks as close as possible to the potential emplacement sites. The Task Force will integrate operations, support, family housing, and QOL within the existing Navy, Air Force, Army, and proposed Marine Corps real property boundaries. The Joint Guam Program Office (JGPO) will work with the Army to synchronize new requirements with criteria already established in GJMMP planning efforts to date.

General facility requirements for the Army include administration, storage, training, shops, earth covered magazine, and Quality of Life facilities. Basic Facilities Requirements for the Army's requirements and detailed site plans are still being developed for necessary military construction projects. Approximate types and sizes of facilities needed overall likely include:

Table: 3-4 Army Facility Requirements

FACILITY TYPE	FACILITY CATEGORY	REQUIREMENT (SF)
Operational	100	113,000
Maintenance	200	160,000
Supply/Storage	400	TBD
Medical/Dental	500	0
Administrative	600	132,000
Housing/Community	700	TBD
TOTAL		**TBD**
Housing - family		TBD
Housing - BEQ		TBD
Housing - BOQ		TBD

4. Plan to Accomplish Construction

The current available work force, construction materiel throughput of the port, utility capacities and existing road conditions, supports a current volume of $550 million (both private and government sectors) of construction per year on Guam. Two independent studies conducted by the Department have determined that various enhancements to construction capacity are required to increase the volume of construction capacity to $2.5 billion per year. The Department is evaluating potential enhancements that will increase the construction capacity of Guam to support the desired completion date. However, even with these enhancements, construction capacity remains a constraint, and we continue to identify and evaluate potential enhancements to increase construction capacity.

Port Capacity: Throughput of the commercial port is limited due to the condition of the cranes and the inefficient site layout. The U.S. Department of Transportation, Maritime Administration (MARAD) is working with the Port Authority of Guam to facilitate actions that will improve the port's efficiency and effectiveness. Additionally, commercial shipping companies that use the port have recently purchased three cranes that will be relocated to Guam after their refurbishment to replace existing cranes. The scheduled timeline for installation of the refurbished cranes will support the Department's major vertical construction, which is anticipated to begin in FY12.

Roads and Bridges: Once off-loaded from ships at the port, all construction equipment and traffic, materiel, and supplies will traverse existing public road systems to the construction sites. To support the increased traffic, as well as the weight of the construction vehicles, the Department has partnered with the Federal Highways Administration (FHWA) and Guam Department of Public Works to address the impacts of a substantial increase in the number and weight of slow moving, cargo-laden vehicles on traffic flow and road conditions. Road widening and intersection improvement projects will be considered as potential mitigation of impacts caused by military construction activities.

Utilities Capacity: The utilities systems have limited additional capacity for electricity, water, waste water and solid waste. To facilitate the relocation of Marines from Okinawa to Guam, GoJ agreed to contribute $740

million in FY08 dollars to assist with the utility infrastructure and facilities to support the additional requirements created by the relocation. The Department has completed initial technical and business case analyses for potential utilities solutions in support of the Marine Corps relocation. Break point studies have been conducted on each commodity predict capacity shortfalls in electricity, water, and wastewater and have determined that two years into the Marine Corps relocation effort there are potential deficiencies in electricity, water, and waste water capacity. The Department is analyzing interim operating solutions that will be required to bridge the gap from when the construction activities exceed the excess capacity currently available to when the new utilities plants are built and on line to supply utilities services for the fully relocated Marine Corps forces. These interim solutions are under development and will be addressed in the Environmental Impact Statement.

The Department is currently considering three alternatives for analysis regarding the long term utilities solutions:

- A Special Purpose Entity (SPE) , a public-private venture that addresses the USMC demands only
- A SPE that addresses island-wide DOD demands only
- A SPE that partners with the Government of Guam to upgrade their system in addition to island-wide DoD demands.

The Department is discussing these alternatives and other potential approaches with the Guam Consolidated Commission on Utilities, as well as with representatives of GoJ. It is expected that the first iteration of a necessary business development model will require considerable analysis of underlying technical and fiscal matters and will take approximately 12 to 14 months to formulate. At that point, a solicitation for a potential business partner will occur. Long term utilities solutions are anticipated to be fully operational by 2014.

Labor: The Department estimates that there are approximately 5,600 construction laborers currently available in Guam. Naval Facilities Engineering Command (NAVFAC), the Department's construction execution agent for Guam, estimates that between 5,000 and 10,000 laborers are needed to execute $1B of construction work in place (WIP) per year.

NAVFAC further estimates that between 12,000 and 25,000 laborers would be required to execute a $2.5B effort of construction WIP annually. An estimated 6,000 to 20,000 off-island workers will be required to reach the necessary work force strength. The NAVFAC study estimated that 6,000 laborers will migrate to Guam from the continental United States or Hawaii. The remainder would come from either the Commonwealth of the Northern Mariana Islands, Freely Associated States, or from other foreign locations as non-immigrant laborers requiring H2B visas. Pursuant to Pub. L. 110-229 Congress has already supported an increase in the ceiling for H2B visas for Guam and CNMI through 2014.

5. Plan to Support Construction Workforce

A significant increase in the construction workforce is needed to complete the construction projects necessary to expand the presence of U.S. military forces on Guam.

Guam has a limited housing market and the projected increase of construction workers will far exceed the current capacity for temporary accommodations. Various alternatives are being investigated to support the transient workforce. Key factors to be considered include costs, durability, post-construction (secondary) use of facilities, risk to government and contractors and socio-economic benefits and impacts.

One of the approaches being considered for transient workforce housing/logistical support is to place the responsibility on the individual construction contractors and not with the Federal Government. The Department will ensure that the contract documents, the source selection process, and contract administration ensure mitigation of any negative socioeconomic impacts of large numbers of H2B workers and the Department will partner with the appropriate Federal agencies to conduct inspections of transient workforce housing to ensure contract compliance.

Other options considered for adequate workforce housing include:

- DoD funded workforce housing on DoD property under MILCON authority, with post-construction (permanent) use for barracks, training facilities, etc.

- DoD funded temporary workforce housing on DoD property as an overhead cost on large construction contracts. This concept involves industry building durable temporary facilities as required, and dismantling worker accommodations after the project is complete.
- Privately funded construction and operation of worker housing on GovGuam property that can subsequently be adopted for public use (affordable housing). This concept includes partnerships with GovGuam and private industry to create public/private ventures.
- Establishment of logistics contracts to provide durable temporary worker housing as part of an overall logistics contract that includes housing, medical, transportation and other services.

The Department will include enforcement by proper authorities of appropriate standards to ensure the safety and security of all transient workers in housing complexes, including:

- Safe and secure living conditions for transient personnel
- Suitable physical security and accommodation of cultural diversity

The development and ultimate decision regarding the appropriate solutions for workforce housing is ongoing and is part of the overall planning with industry and GovGuam stakeholders. DoD is currently estimating the approximate cost for providing workforce housing. Costs to provide these services will be funded respectively in each U.S. MILCON appropriation and GoJ Direct Cash Contribution.

6. Updated Funding Plan for MILCON and Family Housing Appropriations

The most up to date funding profile for the relocation to Guam was included in the Department's Presidential Budget FY09 submission. It included the following Military Construction:

Table 6-2 Military Construction Appropriation Funding Profiles FY09-13*

Service	FY09 ($Millions)	FY10 ($Millions)	FY11 ($Millions)	FY12 ($Millions)	FY13 ($Millions)
USMC Military Construction, Navy (USMC)	28.0	365.0	466.0	567.0	567.0

*** FY09 President's Budget**

An update to this funding profile will be provided with the Department's FY 2010 President's Budget submission, as directed in Senate Report (110-428) which accompanies the Senate version of the Military Construction and Veterans Affairs and Related Appropriations Bill, 2009.

The JGPO has been consulting with the GoJ regarding which facilities will be funded by GoJ Direct Cash Contribution funds and those that will be funded by the U.S. in support of the relocation of Marines from Okinawa to Guam. As previously stated, exact project scopes as well as year of execution are still under discussion. A notional profile for project execution across the program is being developed, as well as specifics on near-term projects to be funded by GoJ and by the U.S.

7. Status of Availability and Funding Mechanism for GOJ Contributions

Direct Cash Contributions Funding

The GoJ Direct Cash Contribution fund contributions will be deposited into a U.S. Treasury Account pursuant to 10 USC 2350k. Detailed implementing instructions are being developed that will specifically outline how the funds will be managed and accounted for once they are deposited into the account. These instructions will further ensure that the GOJ has appropriate transparency and accountability for the expenditure of those funds throughout the program.

Utilities SPE Funding

To facilitate the relocation of Marines from Okinawa to Guam, GoJ agreed to finance $740 million in FY08 dollars, recoverable in utility rates to the GoJ, to assist with the utility infrastructure and facilities to support the additional requirements created by the relocation. Studies are ongoing to determine the feasibility of providing utilities to include possible renewable energy technologies for 1) the Marines relocating from Okinawa only, 2) all DOD requirements on Guam, and 3) Island wide requirements, including DOD and Guam requirements. As the studies are completed and the business case analyses progress, further decisions will be made regarding the makeup of the Special Purpose Entity (SPE) and the preferred solutions for each of the specific utilities. The ultimate utility systems could be financed by the GoJ fiscal commitment, or a consortium of other funding (i.e. commercial bank loans, bonds, or other commercial finance instruments). It is expected to take 12-14 months to establish sufficient technical and business model details necessary to prepare a Request for Proposal to solicit a lead business for the SPE.

Housing SPE Funding

To facilitate the realignment effort, GoJ has agreed to contribute $2.55B in financial instruments, measured in FY08 dollar amounts, to fund a SPE, a public-private venture that would provide housing for Marine Corps forces

relocating from Okinawa to Guam.

The U.S. and GoJ are currently preparing an implementing instruction covering SPE Housing business structure and operations. The implementing instruction will contain terms and conditions which are consistent with existing military family housing privatization initiatives, protect the financial interests of the U.S., and ensure the provision of high quality, sustainable housing for U.S. Marine Corps forces relocating from Okinawa to Guam.

8. CONCLUSION

The Explanatory Statement of the Consolidated Appropriations Act, 2008, directed the Secretary of Defense to submit a report on the Department's planning efforts on Guam to the Committees on Appropriation of both Houses of Congress, which directed the Secretary of Defense to submit a report on the Department's planning efforts on Guam to the Committees on Appropriation of both Houses of Congress.

The Department of Defense, led by the Joint Guam Program Office and with the support of the GoJ, has expended considerable time, effort, and energy in joint and separate meetings to develop the implementation details, schedules, specific financing mechanisms, and schedules to support the Realignment Roadmap. While much progress has been made, much work still remains to be completed.

The Department of Defense has focused its efforts with the ongoing NEPA EIS, and will provide the necessary detailed plans for construction, including alternatives that were considered. Submission of the GoJ JFY09 budget request to the National Diet of Japan, along with the U.S. President's Budget FY10 Budget Request will identify funding for specific construction projects with supporting budget details. These budget documents will form the first year increment of funding to accomplish the vision of the Realignment Roadmap within the broader Master Plan. The Department of Defense will share these key documents with the Congress when available.

SECNAV COORDINATION PAGE

Office/Dept	Point of Contact/Title	Phone	Date
DUSD-I&E	Mr. Wayne Arny	703-571-9065	11 Sep 08
USD-C	Ms. Tina Jonas	703-697-5554	11 Sep 08
SAF (IE&L)	Maj Gen Del Eulberg	703-604-5295	9 Sep 08
OSD PA&E	LtGen Emerson Gardner	703-697-0221	11 Sep 08
PACOM J4	BG Thomas Richardson	808-477-0879	8 Sep 08
OPNAV N4	VADM Mike Loose	202-685-1148	9 Sep 08
OPNAV N1	VADM Mark Ferguson	703-614-1101	8 Sep 08
OPNAV N80	RADM Richard Hunt	703-693-1291	8 Sep 08
ASN(FM&C)	Ms Carolyn Sparks	703-692-1687	9 Sep 08
CNIC	Ms Anne Davis	202-433-3200	8 Sep 08
COMPACFLT	RDML Michael Giorgione	808-472-1000	8 Sep 08
DASD-P (EA)	Mr. David Sedney	703-614-2247	8 Sep 08
HQDA G-3/5/7	Mr. Peter Bechtel	703-692-6960	8 Sep 08
HQMC I&L	MajGen Edward Usher	703-695-8202	8 Sep 08
SAL	CDR Gary Sharp	703-697-6935	12 Sep 08
CLA	RADM Michael Miller	703-697-7146	12 Sep 08
FMBE	CAPT Thomas Carney	703-692-6729	12 Sep08

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable Robert C. Byrd
Chairman, Committee on
Appropriations
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Skelton, Johnson, Inouye, Murtha, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Skelton, Johnson, Byrd, Inouye, Obey, Murtha, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable John P. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Byrd, Skelton, Murtha, Johnson, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable Tim Johnson
Chairman, Subcommittee on
Military Construction, Veterans
Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Byrd, Skelton, Murtha, Inouye, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable David R. Obey
Chairman, Committee on
Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Johnson, Byrd, Inouye, Levin, Skelton, Murtha, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Levin, Johnson, Byrd, Inouye, Edwards, Murtha, and Obey.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Byrd, Skelton, Johnson, Inouye, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 3 1 2008

The Honorable Chet Edwards
Chairman, Subcommittee on
Military Construction, Veterans
Affairs and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Military Construction, Veterans Affairs, and Related Agencies Fiscal Year 2009 Committee Report 110-775, the Department of the Navy submits the Navy and Marine Corps "Reports on Child Care Waiting Lists." I am responding on behalf of the Secretary of the Navy.

The current waiting list from 74 installations in the Navy is 8,131 children. The Marine Corps waiting list from 15 installations is 2,337 children. The enclosed reports provide the detailed breakout by installation.

The Department of the Navy appreciates the Committee's interest in Child Care Services, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Johnson, Byrd, Inouye, Levin, Skelton, Murtha, and Obey.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

	Unborn - 12 mos.				13 mos. - 24 mos.				25 mos. - 36 mos.				37 mos. - 48 mos.															
Installation Name	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Waiting List Total (Sum Tier I & II)
NAS Oceana - Dam Neck Annex	25	44	0	9-12 mos	31	19	16	6-9 mos	2	0	10	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	58	63	26	121
NAB Little Creek	69	144	0	9-12 mos	72	53	71	6-9 mos	7	0	50	3-6 mos	0	0	0	0-1 mos	0	0	3	0-1 mos	0	0	0	0-1 mos	148	197	124	345
NS/NSA Norfolk	195	301	0	9-12 mos	245	102	65	3-6 mos	13	0	75	1-3 mos	0	0	0	0-1 mos	0	0	10	0-1 mos	0	0	0	0-1 mos	453	403	150	856
NSA Northwest	9	15	0	1-3 mos	9	5	6	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	18	20	6	38
NAS Oceana	79	131	0	9-12 mos	85	59	47	3-6 mos	1	0	43	1-3 mos	0	0	0	0-1 mos	0	0	3	0-1 mos	0	0	0	0-1 mos	165	190	93	355
NSY Norfolk	37	88	0	9-12 mos	51	40	19	6-9 mos	2	0	34	6-9 mos	0	0	0	0-1 mos	0	0	1	0-1 mos	0	0	0	0-1 mos	90	128	54	218
NWS Yorktown/NWS Cheatham	18	35	0	6-9 mos	23	10	4	1-3 mos	1	0	16	1-3 mos	0	0	0	0-1 mos	0	0	5	0-1 mos	0	0	0	0-1 mos	42	45	25	87
NSA Philadelphia	24	30	0	1-3 mos	10	10	0	1-3 mos	1	5	0	1-3 mos	2	13	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	37	58	0	95
NSA Mechanicsburg	4	14	0	3-6 mos	3	1	0	1-3 mos	3	1	0	1-3 mos	0	4	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	10	20	0	30
NAS JRB Willow Grove	13	12	0	3-6 mos	1	1	0	1-3 mos	0	7	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	14	20	0	34
SUBASE New London	33	40	0	0-1 mos	9	28	0	1-3 mos	13	0	0	1-3 mos	9	22	0	1-3 mos	0	0	50	0-1 mos	0	0	31	0-1 mos	64	90	81	154
NAS Brunswick	9	1	0	6-9 mos	4	1	0	1-3 mos	1	12	0	1-3 mos	16	3	0	1-3 mos	0	0	47	0-1 mos	0	0	16	0-1 mos	30	17	63	47
NSY Portsmouth	19	20	0	6-9 mos	0	14	0	1-3 mos	0	10	0	1-3 mos	0	0	0	0-1 mos	0	0	23	0-1 mos	0	0	37	0-1 mos	19	44	60	63
NWS Earle	8	3	0	3-6 mos	0	0	0	1-3 mos	3	1	0	1-3 mos	2	0	0	0-1 mos	0	0	23	0-1 mos	0	0	16	0-1 mos	13	4	39	17
NAES Lakehurst	7	1	0	3-6 mos	1	4	0	1-3 mos	0	2	0	1-3 mos	1	0	0	0-1 mos	0	0	68	0-1 mos	0	0	64	0-1 mos	9	7	132	16
NS Newport	15	3	0	6-9 mos	2	14	0	1-3 mos	6	4	0	1-3 mos	12	27	0	1-3 mos	0	0	28	0-1 mos	0	0	27	0-1 mos	35	48	55	83
NSGA Sugar Grove	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	17	0-1 mos	0	0	24	0-1 mos	0	0	41	0
Navy Region MidAtlantic Total	***564***	***882***	***0***		***546***	***361***	***228***		***53***	***42***	***228***		***42***	***69***	***0***		***0***	***0***	***278***		***0***	***0***	***215***		***1205***	***1354***	***949***	***2559***
JMF St. Mawgan	1	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	1	0	0	1
NSA Naples/NSA Gaeta	22	0	4	3-6 mos	30	10	9	3-6 mos	15	0	2	3-6 mos	7	0	1	6-9 mos	17	0	0	3-6 mos	17	17	4	1-3 mos	108	27	20	135
NS Rota	0	0	0	0-1 mos	0	1	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	1	0	1
NAS Sigonella	10	3	2	1-3 mos	2	1	0	1-3 mos	1	0	1	1-3 mos	7	0	0	1-3 mos	0	0	0	0-1 mos	0	0	1	0-1 mos	20	4	4	24
Navy Region Europe Total	***33***	***3***	***6***		***32***	***12***	***9***		***16***	***0***	***3***		***14***	***0***	***1***		***17***	***0***	***0***		***17***	***17***	***5***		***129***	***32***	***24***	***161***
NAF Atsugi	5	7	0	6-9 mos	0	12	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	5	19	0	24
CFA Sasebo	1	0	1	1-3 mos	0	0	1	1-3 mos	0	0	2	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	1	0	4	1
CFA Yokosuka	35	19	2	3-6 mos	10	8	5	6-9 mos	10	9	8	3-6 mos	19	13	24	3-6 mos	6	23	30	6-12 mos	2	7	11	6-9 mos	82	79	80	161
Navy Region Japan Total	***41***	***26***	***3***		***10***	***20***	***6***		***10***	***9***	***10***		***19***	***13***	***24***		***6***	***23***	***30***		***2***	***7***	***11***		***86***	***98***	***84***	***186***
NS Pearl Harbor	60	10	145	9-12 mos	12	2	145	9-12 mos	8	5	110	6-9 mos	15	4	102	3-6 mos	0	2	20	3-6 mos	0	0	0	0-1 mos	95	23	522	118
PMRF Barking Sands	3	0	0	6-9 mos	7	0	0	1-3 mos	0	0	0	0-1 mos	5	0	0	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	15	0	0	15
Navy Region Hawaii Total	***63***	***10***	***145***		***19***	***2***	***145***		***6***	***5***	***110***		***20***	***4***	***102***		***0***	***2***	***20***		***0***	***0***	***0***		***110***	***23***	***522***	***133***
NS San Diego/NB Coronado	238	341	226	12-16 mos	10	11	160	12-16 mos	13	4	110	9-12 mos	25	28	66	6-9 mos	25	45	0	3-6 mos	22	11	0	3-6 mos	333	440	562	773
NB Point Loma	72	136	31	6-9 mos	2	3	23	12-16 mos	4	0	20	3-6 mos	6	40	12	6-9 mos	21	41	0	3-6 mos	18	14	0	3-6 mos	123	234	86	357
NMC San Diego	133	184	100	12-16 mos	7	5	60	12-16 mos	8	2	25	6-9 mos	7	0	18	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	155	191	203	346
NAWS China Lake	18	33	4	12-16 mos	3	21	2	3-6 mos	2	9	0	1-3 mos	2	8	1	1-3 mos	0	14	2	3-6 mos	0	16	3	3-6 mos	25	101	12	126
NAF El Centro	0	2	0	1-3 mos	0	0	0	0-1 mos	0	2	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	4	0	4
NAS Fallon	5	0	2	1-3 mos	3	0	0	0-1 mos	3	0	1	1-3 mos	0	0	0	0-1 mos	1	0	2	0-1 mos	3	0	0	0-1 mos	15	0	5	15
NAS Lemoore	24	45	6	6-9 mos	0	12	6	9-12 mos	0	10	4	6-9 mos	0	8	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	24	75	16	99
NB Ventura County	36	0	73	1-3 mos	5	0	5	1-3 mos	4	0	7	6-9 mos	12	0	0	1-3 mos	2	0	0	0-1 mos	2	0	0	0-1 mos	61	0	85	61
NPGS Monterey	29	45	0	6-9 mos	6	37	0	6-9 mos	16	0	0	1-3 mos	5	6	0	1-3 mos	0	14	0	1-3 mos	1	3	0	1-3 mos	57	105	0	162
MCAS Miramar (Navy Operated)	80	135	71	6-9 mos	2	5	67	9-12 mos	5	2	43	9-12 mos	6	0	31	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	93	142	212	235
MCRD San Diego (Navy Operated)	0	0	0	0-1 mos	0	0	0	0-1 mos	1	1	17	3-6 mos	4	0	6	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	5	1	23	6
Navy Region SouthWest Total	***635***	***921***	***513***		***38***	***94***	***323***		***56***	***30***	***227***		***67***	***90***	***134***		***49***	***114***	***4***		***46***	***44***	***3***		***891***	***1293***	***1204***	***2184***

	Unborn - 12 mos.				13 mos. - 24 mos.				25 mos. - 36 mos.				37 mos. - 5 yrs.															
Installation Name	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Waiting List Total (Sum Tier I & II)
NSA Athens	0	1	0	1-3 mos	0	0	0	0-1 mos	1	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	1	1	0	2
NAS Atlanta	1	0	0	1-3 mos	0	1	0	1-3 mos	0	0	0	0-1 mos	0	1	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	1	2	0	3
NWS Charleston	10	0	11	1-3 mos	5	0	12	3-6 mos	3	0	10	3-6 mos	8	0	9	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	26	0	42	26
NAS Corpus Christi/NS Ingleside	9	11	8	3-6 mos	1	4	9	3-6 mos	1	1	14	1-3 mos	4	2	18	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	15	18	49	33
NTTC Corry Station	29	25	7	6-9 mos	5	6	1	3-6 mos	6	2	3	1-3 mos	10	0	0	1-3 mos	2	3	0	1-3 mos	1	1	0	1-3 mos	53	37	11	90
NAS JRB Fort Worth	23	41	0	6-9 mos	1	42	0	6-9 mos	2	20	0	3-6 mos	2	16	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	28	119	0	147
NS Guantanamo Bay	12	0	3	1-3 mos	5	0	0	1-3 mos	4	0	0	1-3 mos	2	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	23	0	3	23
CBC Gulport	32	11	0	3-6 mos	8	2	0	1-3 mos	15	0	0	1-3 mos	8	18	0	1-3 mos	0	14	0	1-3 mos	0	5	0	1-3 mos	63	50	0	113
NAS Jacksonville	31	48	9	6-9 mos	5	29	13	9-12 mos	2	15	7	1-3 mos	4	6	8	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	42	98	37	140
NAS Key West	19	2	4	3-6 mos	3	0	0	0-1 mos	0	0	0	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	22	2	4	24
SUBASE Kings Bay	30	22	0	6-9 mos	16	2	0	3-6 mos	5	23	0	3-6 mos	8	22	1	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	59	89	1	128
NAS Kingsville	4	1	0	1-3 mos	0	3	0	3-6 mos	0	5	0	3-6 mos	0	2	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	4	11	0	15
NS Mayport	57	30	18	3-6 mos	7	23	5	3-6 mos	4	0	4	1-3 mos	4	0	15	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	72	53	42	125
NAS Meridian	0	0	1	0-1 mos	1	3	3	3-6 mos	0	1	2	3-6 mos	1	0	1	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	2	4	7	6
NAS JRB New Orleans	0	0	0	0-1 mos	0	0	0	0-1 mos	2	0	1	1-3 mos	0	0	0	0-1 mos	13	0	0	0-1 mos	0	0	0	0-1 mos	15	0	1	15
NSA New Orleans	0	0	3	0-1 mos	0	0	1	0-1 mos	0	0	0	0-1 mos	1	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	1	0	4	1
NSA Panama City	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	11	0	0	0-1 mos	7	0	0	0-1 mos	18	0	0	18
NAS Pensacola	26	22	4	6-9 mos	5	4	0	3-6 mos	6	2	4	1-3 mos	8	0	0	0-1 mos	4	3	0	0-1 mos	0	2	0	0-1 mos	49	33	8	82
NAS Whiting Field	3	4	3	1-3 mos	3	0	0	3-6 mos	0	1	1	1-3 mos	3	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	9	5	4	14
Navy Region SouthEast Total	***286***	***218***	***71***		***65***	***119***	***44***		***51***	***70***	***46***		***63***	***67***	***52***		***30***	***20***	***0***		***8***	***8***	***0***		***503***	***502***	***213***	***1005***
Navy Region Marianas Total	***10***	***0***	***10***	***6-9 mos***	***3***	***0***	***27***	***6-9 mos***	***0***	***0***	***8***	***1-3 mos***	***0***	***0***	***0***	***0-1 mos***	***0***	***0***	***0***	***0-1 mos***	***0***	***0***	***0***	***0-1 mos***	***13***	***0***	***45***	13
NS Everett	42	1	48	3-6 mos	5	1	2	1-3 mos	7	1	0	1-3 mos	6	0	0	1-3 mos	1	0	0	0-1 mos	0	0	0	0-1 mos	61	3	50	64
NAS Whidbey Island	30	13	77	3-6 mos	1	0	78	6-9 mos	6	0	26	3-6 mos	7	3	21	3-6 mos	7	0	0	1-3 mos	1	0	0	1-3 mos	52	16	202	68
NB Kitsap	71	20	22	1-3 mos	3	6	73	3-6 mos	6	1	67	6-9 mos	9	7	35	3-6 mos	4	2	0	1-3 mos	1	1	0	1-3 mos	94	37	197	131
Navy Region NorthWest Total	***143***	***34***	***147***		***9***	***7***	***153***		***19***	***2***	***93***		***22***	***10***	***56***		***12***	***2***	***0***		***2***	***1***	***0***		***207***	***56***	***449***	***263***
NS Great Lakes	29	8	6	3-6 mos	5	0	0	1-3 mos	4	7	1	1-3 mos	11	2	0	1-3 mos	3	0	0	0-1 mos	0	0	0	0-1 mos	52	17	7	69
NSA Mid-South	9	13	1	3-6 mos	0	1	0	1-3 mos	3	2	8	1-3 mos	4	5	8	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	16	21	17	37
Navy Region MidWest Total	***38***	***21***	***7***		***5***	***1***	***0***		***7***	***9***	***9***		***15***	***7***	***8***		***3***	***0***	***0***		***0***	***0***	***0***		***68***	***38***	***24***	***106***
WNY/Anacostia Annex	49	42	16	3-6 mos	0	8	2	6-9 mos	1	9	2	1-3 mos	0	2	5	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	50	61	25	111
NSA Indian Head	13	5	0	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	13	5	0	18
NSA Dahlgren	16	6	15	3-6 mos	0	9	5	3-6 mos	0	1	7	1-3 mos	0	1	2	1-3 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	16	17	29	33
NSA Annapolis	14	9	0	3-6 mos	0	10	0	3-6 mos	1	0	12	3-6 mos	0	2	4	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	15	21	16	36
NAS Patuxent River	37	35	1	6-9 mos	0	24	5	6-9 mos	0	2	9	3-6 mos	1	1	0	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	38	62	15	100
NNMC Bethesda	33	21	0	9-12 mos	0	21	0	6-9 mos	1	13	0	3-6 mos	1	17	0	3-6 mos	0	0	0	0-1 mos	0	0	0	0-1 mos	35	72	0	107
Navy Region NDW Total	***162***	***118***	***32***		***0***	***72***	***12***		***3***	***25***	***30***		***2***	***23***	***11***		***0***	***0***	***0***		***0***	***0***	***0***		***167***	***238***	***85***	***405***
No Assigned Installation (CONUS)	***163***	***664***	***0***	***6-9 mos***	***0***	***152***	***0***	***6-9 mos***	***0***	***156***	***0***	***6-9 mos***	***0***	***0***	***0***	***0-1 mos***	***0***	***0***	***0***	***0-1 mos***	***0***	***0***	***0***	***0-1 mos***	***163***	***972***	***0***	***1135***
TOTAL NAVY	**2128**	**2897**	**924**		**724**	**840**	**920**		**223**	**348**	**756**		**264**	**283**	**388**		**117**	**161**	**332**		**75**	**77**	**234**		**3531**	**4606**	**3554**	**8137**

1. Navy operates a 3 Tier waiting list system by locality, installation, and age group.
2. Tier I "Projected Demand" are those members who need care in the short term (e.g. newborns).
3. Tier II "Immediate Demand" are those members that need care immediately.
4. Tier III "Preference" are those members that are in a viable care option, however, prefer a different delivery system (e.g. member is currently enrolled in in-home care but prefer center based care).
5. The sum of Tiers I & II are the locality/installation waiting list and capability (or capacity shortfalls) are measured by the average placement time.
6. The Navy's current goal is to add additional capacity to achieve a placement time of 3 months or less which correlates to meeting 80% of OSD Potential Need.

MARINE CORPS HAC
CHILD CARE WAITING LIST
21 JULY 2008

	Unborn - 12 mos.				13 mos. - 24 mos.				25 mos. - 36 mos.				37 mos. - 5 yrs.														
Installation Name	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Avg Placement Time (mos.)	Tier I	Tier II	Tier III	Waiting List Total (Sum of Tier I & II)
MCB Lejeune	124	152		12	0	102	34	12	0	66	25	8	2	88	30	6	0	0	0	0	0	0	0	0	126	408	89	**534**
Quantico MCB	52	62	7	6-8 mos	17	19	4	4-6 mos	12	7	6	0-3 mos	5	31	4	3-9 mos									86	119	21	**205**
MCAS New River	44	0	33	8	5	0	24	3	10	0	2	<1	11	0	4	<1	0	0	0	available	0	0	0	available	70	0	63	**70**
MCAS Cherry Point	70	0	44	11	3	0	55	4	4	0	19	2	3	0	31	1	0	0	0	0	0	0	0	0	80	0	149	**80**
Beaufort		45		6		87		6		58		6		27		1									0	217	0	**217**
Kaneohe MCB HI	34	29	26	12	2	1	63	12	6		54	12	7		44	12									49	30	187	**79**
Camp Pendleton MCB	344		236	19			157	15			85	15			133	11			121	5			45	3	344	0	777	**344**
Butler	90	17	28	15	2	9	45	12	3	12	36	12	1	19	101	6		47	112	10		24	27	10	96	128	349	**224**
Albany			3																						0	0	3	**0**
29 Palms	34	0	23	6	52	0	44	12	20	0	20	6	21	0	24	1	0	0	0	0	0	0	0	0	127	0	111	**127**
MCAS Iwakuni, JP	11	0	4	>1	2	5	3	>1	4	0	2	>2	6	5	2	>6	6	0	4	>1	5	4	0	>1	34	14	15	**48**
MCAS Miramar	25	0	0	1	25	38	0	1	25	29	0	1	15	27	8	6	15	19	3	12	15	6	15	12	120	119	26	**239**
Barstow	12	18		6		18		6		12		4		6		3		0		0		0		0	12	54	0	**66**
MCAS Yuma, AZ	21	14	1	6-9 mos	0	36	0	6-9 mos	0	7	2	2-4 mos	0	2	3	1-3 mos									21	59	6	**80**
Henderson Hall	6	11								7															6	18	0	**24**
Total																									1171	1166	1796	**2337**

REPORT TO CONGRESS

Projected Base Population Increases for Marine Corps Installations

Prepared by:

Installations and Logistics Department
Headquarters U.S. Marine Corps
3000 Marine Corps Pentagon
Washington, DC 20350-3000

September 24, 2008

Projected Base Population Increases for Marine Corps Installations

BACKGROUND

House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009 directed the Army and Marine Corps to submit a report no later than 1 October 2008 to the Committees on Appropriations of both Houses of Congress on projected base population increases for installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. The excerpt of HR 110-775, establishing the reporting requirement, is provided at Attachment 1.

DISCUSSION

The Marine Corps report is provided at Attachment 2. The information reflects population growth related to Base Closure and Realignment Commission (BRAC) actions and the Marine Corps' "Grow the Force" initiative. The installations identified in Attachment 2 are those that meet the reporting threshold (i.e., at least an additional 1,000 permanent party military personnel compared to the 2003 baseline).

Military personnel information is based on Assigned Strength Reports (ASRs) provided by the Total Force Structure Division (TFSD) of the Marine Corps Combat Development Command. Information relating to dependents and school-aged dependent children is based on the "Total Force Data Warehouse" information system. Accordingly, that information from 2009 and forward is estimated.

Outyear data on students/trainees is based on Facility Support Requirements (FSR) planning data and represent estimated numbers of students/trainees at each installatoin.

Data on contractors is not currently available. The Marine Corps will develop that information and provide in future semi-annual reports when it becomes available.

Six Marine Corps installations were identified as meeting the prerequisite of adding at least 1,000 permanent party military personnel in the given timeframe. Those installations are:

- Marine Corps Base Camp Lejeune, North Carolina;

- Marine Corps Air Station New River, North Carolina; [1]
- Marine Corps Base Camp Pendleton, California;
- Marine Corps Air Station Cherry Point, North Carolina;
- Marine Corps Base Quantico, Virginia; and
- Marine Corps Air Ground Combat Center Twentynine Palms, California.

All of the above installations will experience more than 20 percent growth in base population by FY 2013 (as compared to FY 2003). However, the number of school-age dependents will not necessarily increase by the same magnitude due to Marine Corps demographics, which feature a proportionately younger and junior force.

To address school impacts at Marine Corps Base Camp Lejeune, the following Department of Defense Education Activity (DoDEA) schools are planned (dates indicate beginning of planning):

FY 2008: NEW ELEMENTARY SCHOOL
FY 2009: NEW ELEMENTARY SCHOOL
FY 2010: MIDDLE SCHOOL ADDITION
FY 2011: HIGH SCHOOL ADDITION
FY 2012: NEW ELEMENTARY SCHOOL

The Marine Corps plans to facilitate the construction of the above schools through the use of military housing privatization authorities, which authorize the construction of ancillary supporting facilities (such as schools) in conjunction with housing privatization projects.

At the other locations, the Marine Corps is engaged with the local communities to keep them informed of the plans for installation growth. This is accomplished through Community Plans and Liaison Offices (CP&LOs), established by the Marine Corps at each installation, to improve communications with communities through outreach, raise public awareness, create working relationships with stakeholders and influence local, regional and state decisions that affect the military.

[1] Marine Corps Air Station New River does not exceed the 1,000 population-growth threshold until FY 2011. Hence, data is not provided for FYs 2009/2010.

House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009

BRAC, Global Restationing, Growing the Force, and Local School Impacts.—The Committee remains concerned by the impact that Base Realignment and Closure (BRAC), global restationing, and the Growing the Force initiative will have on the ability of localities near growing bases to accommodate increased demands for off-base infrastructure such as schools. In order to help local communities plan and budget for such impacts, the Committee directs the Department of Defense to keep the responsible authorities fully informed about the effects of force structure changes on base populations. The Committee further directs the Army and Marine Corps to submit no later than October 1, 2008, and semi-annually thereafter, to the Committees on Appropriations of both Houses of Congress an updated report on projected base population increases for those installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. In addition, the total growth in base population for each such installation from 2003-2013, this report shall provide, at minimum, a breakout of the data for each such installation showing the growth during the same period in the numbers of permanent party active duty military members, Department of Defense civilians, Reserve component personnel, students and trainees, contractors, military family members, school age children of military family members, and school age children of DoD civilians. In addition, the report shall also contain a description of the status of local school construction efforts at all installations with an expected base population growth of 20 percent or more.

Report on Projected Marine Corps Base Population Increases

INSTALLATION	Military Active Duty	Military Reserve	Total	DoD Civilian	Students/ Trainees	Contractors	Military Dependents	Total Population	Military School Age Dependents	DoD Civilian School Age Dependents	Total School Age Dependents
2003											
CAMP LEJEUNE NC	30,526	331	30,857	1,674	7,224	N/A	16,061	48,592	7,207	810	8,017
CAMP PENDLETON CA	31,196	1,166	32,362	1,419	317	N/A	26,712	60,493	11,738	687	12,425
CHERRY POINT NC	8,037	64	8,101	1,086	402	N/A	6,634	15,821	3,083	525	3,608
NEW RIVER NC	5,018	6	5,024	153	309	N/A	6,420	11,597	3,027	74	3,101
QUANTICO VA	4,828	429	5,257	1,305	1,458	N/A	9,414	15,976	4,463	631	5,094
TWENTYNINE PALMS CA	8,991	77	9,068	673	2,148	N/A	6,915	16,656	3,289	326	3,615
2009											
CAMP LEJEUNE NC	38,648	812	39,460	5,407	4,782	N/A	28,674	73,541	7,866	2,616	10,482
CAMP PENDLETON CA	37,851	1,339	39,190	4,875	5,046	N/A	35,752	79,817	9,245	2,359	11,604
CHERRY POINT NC	8,844	394	9,238	1,962	501	N/A	10,829	22,029	3,166	949	4,115
NEW RIVER NC	5,858	21	5,879	667	465	N/A	7,465	8,132	2,224	323	2,547
QUANTICO VA	5,615	712	6,327	2,701	5,248	N/A	10,213	19,241	3,410	1,307	4,717
TWENTYNINE PALMS CA	10,852	86	10,938	2,687	2,408	N/A	9,424	21,662	2,472	1,300	3,772
2010											
CAMP LEJEUNE NC	39,696	813	40,509	5,407	6,355	N/A	29,136	75,052	8,036	2,616	10,652
CAMP PENDLETON CA	38,439	1,339	39,778	4,860	6,360	N/A	36,059	80,697	9,359	2,351	11,710
CHERRY POINT NC	9,332	394	9,726	1,962	487	N/A	11,020	22,708	3,236	949	4,185
NEW RIVER NC	5,842	21	5,863	667	465	N/A	7,465	8,132	2,224	323	2,547
QUANTICO VA	5,649	725	6,374	2,701	5,087	N/A	10,213	19,288	3,410	1,307	4,717
TWENTYNINE PALMS CA	11,159	86	11,245	2,687	2,608	N/A	9,477	22,022	2,492	1,300	3,792
2011											
CAMP LEJEUNE NC	39,921	815	40,736	5,385	5,998	N/A	29,132	75,253	8,035	2,605	10,640
CAMP PENDLETON CA	38,681	1,339	40,020	4,860	6,360	N/A	36,200	81,080	9,411	2,351	11,762
CHERRY POINT NC	9,313	394	9,707	1,962	487	N/A	11,020	22,689	3,236	949	4,185
NEW RIVER NC	6,637	21	6,658	667	465	N/A	7,674	14,999	2,301	323	2,624
QUANTICO VA	5,942	725	6,667	5,009	4,269	N/A	10,371	22,505	3,469	2,424	5,893
TWENTYNINE PALMS CA	11,351	86	11,437	2,687	2,561	N/A	9,835	22,572	2,624	1,300	3,924
2012											
CAMP LEJEUNE NC	39,950	815	40,765	5,385	5,641	N/A	29,132	75,282	8,035	2,605	10,640
CAMP PENDLETON CA	38,672	1,342	40,014	4,860	6,360	N/A	36,200	81,074	9,411	2,351	11,762
CHERRY POINT NC	9,362	394	9,756	1,962	487	N/A	11,020	22,738	3,236	949	4,185
NEW RIVER NC	6,616	21	6,637	667	466	N/A	7,674	14,978	2,301	323	2,624
QUANTICO VA	5,788	725	6,513	5,009	3,996	N/A	10,371	22,351	3,469	2,424	5,893
TWENTYNINE PALMS CA	11,508	86	11,594	2,687	2,513	N/A	9,835	22,729	2,624	1,300	3,924
2013											
CAMP LEJEUNE NC	40,062	815	40,877	5,385	5,641	N/A	29,132	75,394	8,035	2,605	10,640
CAMP PENDLETON CA	38,792	1,339	40,131	4,860	6,360	N/A	36,200	81,191	9,411	2,351	11,762
CHERRY POINT NC	9,393	394	9,787	1,962	487	N/A	11,020	22,769	3,236	949	4,185
NEW RIVER NC	6,637	21	6,658	667	466	N/A	7,674	14,999	2,301	323	2,624
QUANTICO VA	5,804	725	6,529	5,009	3,996	N/A	10,371	22,367	3,469	2,424	5,893
TWENTYNINE PALMS CA	11,535	86	11,621	2,687	2,513	N/A	9,835	22,756	2,624	1,300	3,924

Attachment 2

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 1 2008

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Marine Corps to report to the Committees on Appropriations of both Houses of Congress on projected base population increases for those installations that will add at least 1,000 military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. Additionally, the report shall also contain a description of the status of local school construction efforts at all installations with an expected base population growth of 20 percent or more.

In accordance with this requirement, the Marine Corps report is attached. The Department will continue to provide these reports on a semiannual basis as required.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Obey, Johnson, and Edwards.

Sincerely,

BJP

BJ Penn

Enclosure

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 1 2008

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Marine Corps to report to the Committees on Appropriations of both Houses of Congress on projected base population increases for those installations that will add at least 1,000 military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. Additionally, the report shall also contain a description of the status of local school construction efforts at all installations with an expected base population growth of 20 percent or more.

In accordance with this requirement, the Marine Corps report is attached. The Department will continue to provide these reports on a semiannual basis as required.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 1 2008

The Honorable David R. Obey
Chairman, Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Marine Corps to report to the Committees on Appropriations of both Houses of Congress on projected base population increases for those installations that will add at least 1,000 military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. Additionally, the report shall also contain a description of the status of local school construction efforts at all installations with an expected base population growth of 20 percent or more.

In accordance with this requirement, the Marine Corps report is attached. The Department will continue to provide these reports on a semiannual basis as required.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Johnson, and Edwards.

Sincerely,

BJP

BJ Penn

Enclosure

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

OCT 1 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Marine Corps to report to the Committees on Appropriations of both Houses of Congress on projected base population increases for those installations that will add at least 1,000 military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. Additionally, the report shall also contain a description of the status of local school construction efforts at all installations with an expected base population growth of 20 percent or more.

In accordance with this requirement, the Marine Corps report is attached. The Department will continue to provide these reports on a semiannual basis as required.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Johnson.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 29 2008

ACTION MEMO

FOR: SECRETARY OF THE NAVY

FROM: Mr. Sean J. Stackley, Assistant Secretary of the Navy (RD&A)

SUBJECT: Shipbuilding Investment Report to Congress

- The FY 2008 National Defense Authorization Act (PL 110-181) directed the Navy to submit a report to the Congressional defense committees by October 1, 2008, outlining the Navy's strategies to stimulate capital investment and process improvement at the major shipyards.

- Enclosed are letters to the chairmen of the Congressional defense committees (SASC and HASC and SAC and HAC Defense Subcommittees) for your signature (TAB A) forwarding the subject report (TAB B).

- This report provides a summary of the Navy's strategies to incentivize shipyard investment. In addition, the report provides an assessment of the major shipbuilding industrial base as well a description of mechanisms available to the Government and industry to finance facilities and process improvements.

- At the direction of the authorization language, the Navy consulted with Bearing Point, Inc., to obtain an independent financial analysis of the data received from the corporations.

RECOMMENDATION: Sign enclosed letters at TAB A.

COORDINATION: TAB C

ATTACHMENTS: As Stated

Prepared by: M. Leese, ODASN SHIPS, 703-614-4495

10 Oct 08

AASN
RELEASE
10/6/08

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

October 1, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In compliance with Section 122 of the Fiscal Year 2008 National Defense Authorization Act (Public Law 110-181), the enclosed unclassified report provides the Navy's current strategy for shipyard investment. Although unclassified, certain portions of the report are marked to be protected from public release as containing commercial proprietary information.

The Navy is committed to continuing to work with Congress and industry to encourage the conditions necessary for the advancement and improvement of our shipbuilding industrial base. As described in the report, the Navy has been active in the use of special contract incentives to share the risk and rewards of capital expenditures with our industry partners.

The Navy consulted with a business unit of BearingPoint, Inc., to obtain independent insight and feedback on the financial analysis contained in the report.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

October 1, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In compliance with Section 122 of the Fiscal Year 2008 National Defense Authorization Act (Public Law 110-181), the enclosed unclassified report provides the Navy's current strategy for shipyard investment. Although unclassified, certain portions of the report are marked to be protected from public release as containing commercial proprietary information.

The Navy is committed to continuing to work with Congress and industry to encourage the conditions necessary for the advancement and improvement of our shipbuilding industrial base. As described in the report, the Navy has been active in the use of special contract incentives to share the risk and rewards of capital expenditures with our industry partners.

The Navy consulted with a business unit of BearingPoint, Inc., to obtain independent insight and feedback on the financial analysis contained in the report.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

October 1, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

In compliance with Section 122 of the Fiscal Year 2008 National Defense Authorization Act (Public Law 110-181), the enclosed unclassified report provides the Navy's current strategy for shipyard investment. Although unclassified, certain portions of the report are marked to be protected from public release as containing commercial proprietary information.

The Navy is committed to continuing to work with Congress and industry to encourage the conditions necessary for the advancement and improvement of our shipbuilding industrial base. As described in the report, the Navy has been active in the use of special contract incentives to share the risk and rewards of capital expenditures with our industry partners.

The Navy consulted with a business unit of BearingPoint, Inc., to obtain independent insight and feedback on the financial analysis contained in the report.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

October 1, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In compliance with Section 122 of the Fiscal Year 2008 National Defense Authorization Act (Public Law 110-181), the enclosed unclassified report provides the Navy's current strategy for shipyard investment. Although unclassified, certain portions of the report are marked to be protected from public release as containing commercial proprietary information.

The Navy is committed to continuing to work with Congress and industry to encourage the conditions necessary for the advancement and improvement of our shipbuilding industrial base. As described in the report, the Navy has been active in the use of special contract incentives to share the risk and rewards of capital expenditures with our industry partners.

The Navy consulted with a business unit of BearingPoint, Inc., to obtain independent insight and feedback on the financial analysis contained in the report.

A similar letter has been sent to Chairmen Levin, Inouye, and Skelton. If I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

COORDINATION PAGE

Office	Point of Contact/Title	Phone	Date
DASN (SHIPS)	Ms. Allison Stiller	703-697-1710	23 Sep 08
DASN(A&LM)	Mr. Dwayne Weaver	703-693-4073	19 Sep 08
DASN AGC(RDA)	Ms. Katherine Carney	703-697-1642	9 Sep 08
ASN(RDA) CONG	Ms. Sandra Petty	703-697-2585	11 Sep 08
Navy OLA	CAPT David Kirk	703-697-2871	17 Sep 08
PEO Ships	RADM William Landay	202-781-2941	23 Sep 08
PEO Carriers	RDML Michael McMahon	202-781-2949	12 Sep 08
SEA 00B	Ms. Sharie Bourbeau	202-781-0102	12 Sep 08
ASN FM&C (FMB-21)	Ms. Gloria Valdez	703-692-1688	23 Sep 08
ASN F&MC (FMB-E)	LCDR Tadd Gorman	703-692-6732	17 Sep 08
OLA	RADM Michael Miller	703-697-7146	30 Sep 08
SAL	CDR Gary Sharp	703-697-6935	30 Sep 08
FMB-E	CAPT Thomas Carney	703-692-6729	30 Sep 08

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

NOV 0 7 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." In addition, the Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed that no greater than 50 percent of the amounts authorized for Fiscal Year 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the Secretary of the Navy of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fourth quarterly report. The report focuses on surface combat systems and provides greater detail on the plan for how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. The approach outlined in this plan will enable the sought opportunities for innovation and competition.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

NOV 0 7 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." In addition, the Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed that no greater than 50 percent of the amounts authorized for Fiscal Year 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the Secretary of the Navy of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fourth quarterly report. The report focuses on surface combat systems and provides greater detail on the plan for how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. The approach outlined in this plan will enable the sought opportunities for innovation and competition.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

NOV 0 7 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." In addition, the Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed that no greater than 50 percent of the amounts authorized for Fiscal Year 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the Secretary of the Navy of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fourth quarterly report. The report focuses on surface combat systems and provides greater detail on the plan for how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. The approach outlined in this plan will enable the sought opportunities for innovation and competition.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

NOV 0 7 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." In addition, the Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed that no greater than 50 percent of the amounts authorized for Fiscal Year 2009 for the surface combatant combat system engineering program (PE 64307N) may be obligated under a sole source contract until 30 days after submission by the Secretary of the Navy of a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fourth quarterly report. The report focuses on surface combat systems and provides greater detail on the plan for how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. The approach outlined in this plan will enable the sought opportunities for innovation and competition.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

FOURTH QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems
Washington, DC 20376

November 2008

Executive Summary

The Fourth Report to Congress on Naval Open Architecture (NOA) is submitted as directed by the report of the Senate Armed Services Committee (Report No. 110-77). NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. These practices are intended to significantly increase opportunities for innovation and competition, enable reuse of components, facilitate rapid technology insertion and reduce maintenance.

This report includes noteworthy NOA accomplishments of the Open Architecture Enterprise Team from July 2008 through September 2008 with a focus on how surface combat systems upgrades can be accomplished more frequently and at lower cost.

In order to make these systems more affordable, a transformation from building large end-to-end, stove-piped, platform-centric systems towards cross-platform capabilities is essential. An evolutionary approach will enable incremental improvements through a Rapid Capability Insertion Process, and foster innovation from an increased number of sources.

PEO IWS has already embarked on a competitive path for Aegis. In order to ensure that the OA value proposition is realized, the Navy is producing fully-documented, government-defined specifications and class specific data for Aegis Weapons Systems modular interfaces. The Government will have access to the objects and component descriptions, and interface definitions at the Aegis Advanced Capability Build (ACB) 12 Critical Design Review to be held in Fiscal Year 2010 (currently planned for November 2009). This information will be used to support competition for the objects and components in follow-on ACBs (ACB14). After delivery, testing and certification of the ACB 12 software programs, the documented design baseline will be available for future Aegis PSEA competitions.

Competition for the Platform System Engineering Agent (PSEA) functions for both the Aegis and Ship Self Defense System (SSDS) is planned to begin in Fiscal Year 2012. PSEA decisions for other platforms will be made at the appropriate platform life cycle time. The PSEA is responsible for end-to-end combat system performance; systems engineering configuration control, testing, training and logistics; integrating components developed and/or modified by other contractors and technical support of in-service ships.

The Surface Navy is also competing hardware. The Common Display System (CDS) and Common Processing System (CPS) programs provide core display and processing systems in support of the common objective architecture for combat systems. The CDS contract was competitively awarded in November 2007 while the CPS Request for Proposal was released in March 2008. Government selection will be announced this upcoming quarter.

Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements more rapidly and efficiently. By shortening the development timeline, using full and open competition to leverage non-developmental software, and focusing on Fleet-identified problems, the Navy will obtain more capable and effective combat systems.

Table of Contents

Executive Summary i

I. Introduction 1

II. NOA Accomplishments: July 1, 2008 through September 30, 2008 2

III. OA Program Plan for the Surface Domain and Aegis Combat System 5

IV. Summary 21

I. Introduction

A. Reporting Requirement

As directed in the report of the Senate Armed Services Committee (SASC) on the National Defense Authorization Act for Fiscal Year 2008 (Report No. 110-77), the Navy submits this Fourth Quarterly Report to Congress on Naval Open Architecture (NOA). The scope of this quarterly report includes noteworthy NOA accomplishments of the Open Architecture Enterprise Team (OAET) and the Surface Domain from July 2008 through September 2008.[1] As the Assistant Secretary of Navy (Research, Development and Acquisition) (ASN(RDA)) stated in the letter forwarding the Third Report to Congress (dated August 7, 2008), the Fourth Report focuses on surface combat systems and addresses how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost. The report also highlights where software will be partitioned and componentized in order to leverage system design modularity. This approach will enable opportunities for innovation and competition which are fundamental to the value of open architecture (OA).

B. Summary of Previous Reports

The First Report to Congress described the history of NOA[2]; the important role that the OAET plays in providing leadership for NOA; the Department of the Navy's (DON's) long-term focus for implementing OA; and the significant challenges that the Department faces in implementing OA. The First Report also contained information regarding the Navy's two main asset repositories (the PEO C4I Net-Centric Enterprise Solutions for Interoperability (NESI) and the PEO IWS Software, Hardware Asset Re-use Enterprise (SHARE)).

Subsequent reports documented the accomplishments of the Naval Enterprise and Domains during the period January 1 to June 30, 2008. These accomplishments were mapped to the three NOA strategic goals established in the Naval OA Strategy in December 2006. The Second and Third Reports also provided updates on several of the questions contained in SASC Reports 110-77 and 110-335. The forwarding letter that accompanied the Third Report called for additional information to be reported and stated that the focus of the Fourth Report will be on the Surface Domain.

---

1 The Surface Domain consists of Program Executive Offices (PEOs) representing Carriers, Expeditionary Warfare (Littoral and Mine Warfare or LMW), Integrated Warfare Systems (IWS), and Ships. The Air Domain consists of PEO Tactical Aircraft (T) representing PEOs for the Unmanned Aviation and Strike Weapons; Air ASW, Assault and Special Mission Programs, and Program Management (NAVAIR 1.0). The SUBS, C4I, and Space Domains are represented by PEO SUBS, C4I and Space, respectively. Activities of the remaining Domains (Air; Command, Control, Communications and Intelligence (C4I); Space; Submarines (SUBS); and Marine Corps) and the Anti-submarine Warfare (ASW) Community of Interest (CoI) will be provided in the Fifth Report to Congress, to be submitted in February 2009.

2 NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. The Navy and Marine Corps have adopted OA as one way to reduce the rising cost of Naval warfare systems (also known as National Security Systems or NSSs) and platforms and to increase the capabilities of Naval systems.

II. NOA Accomplishments: July 1, 2008 through September 30, 2008

This report is framed in accordance with the overarching Naval OA Strategy established in December 2006. The strategy is comprised of three overarching goals, addressing the business, technical, and cultural aspects of OA transformation. These goals are supported by efforts performed either across the Naval Enterprise by the OAET or within individual Domains (by PEOs, Communities of Interest or CoIs, Programs, or System Commands). In September 2008, the OAET began updating the OA Strategy to reflect the progress made to date and the priorities of Navy leadership.

A. Goal 1 – Change Naval Processes and Business Practices

Goal 1 – Change Naval processes and business practices to use open systems architectures in order to rapidly field affordable, interoperable systems. This goal includes addressing governance challenges; creating policy and guidance materials; developing new business models (such as the Acoustic-Rapid Commercial-off-the-Shelf Insertion (A-RCI) program; incorporating OA principles and practices in programs and acquisition materials including contracts; and encouraging competition and improving interoperability by making information and design artifacts available for reuse by programs.

- In July 2008, the OA Lead Council developed a series of OA criteria elements for integration into the Probability of Program Success (PoPS) program evaluation tool. In January 2008, Secretary of the Navy Notice (SECNAVNOTE) 5000 designated PoPS as the mechanism for reviewing program health. PoPS uses a set of program factors and metrics to evaluate program health during five phases: Planning, Pre-Milestone (MS) B, Post-MS B, Post-MS C, and Sustainment. Over 60 percent of the OA criteria were integrated within PoPS and the remaining criteria elements are being considered for inclusion in the overall core input for gate reviews.

- PEO IWS, in collaboration with the OAET, has begun the process for updating the *OA Contract Guidebook.* During the next quarter, "lessons learned" will be solicited and incorporated based upon experiences using the *Guidebook.* PEO C4I, in collaboration with the SPAWAR Contracts Department, is developing a logical decision tree that will assist program managers and contracting officers in determining appropriate contract data rights and OA language for incorporation into solicitations. PEO C4I is also developing standard contract language that can be used in acquiring services associated with Service Oriented Architectures (SOA). SOA is an approach for building systems that allows organizations to leverage existing assets and support the evolution of these systems to meet changing requirements.

B. Goal 2 – Provide Naval OA Systems Engineering Leadership

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs. Included in this goal are collaborative efforts in systems engineering; process standardization; leveraging OA to provide quick wins and proofs-of-concepts that provide new capabilities to the Fleet; and providing performance enhancements to fielded systems and development projects.

- In June 2008, ASN(RDA) directed that a Systems Engineering Technical Review (SETR) process be applied within the DON. The Air Domain, under sponsorship of the OAET, is defining an OA checklist that will be included as part of DON SETR process. This OA checklist will provide a consistent and repeatable process across the System Commands for OA Technical Authorities to conduct formal SETR program reviews. It is planned that the checklist will be submitted to the ASN(RDA) Chief Systems Engineer for consideration by March 2009.

- In July 2008, DON published the System Design Specification (SDS) Guidebook which included OA language. The SDS Guidebook assists program management organizations in the incorporation of Naval Open Systems Architecture Principles into program designs. SECNAVNOTE 5000 requires that a SDS be prepared for each program and presented for approval as part of the DON requirements and acquisition process.

- PEOs C4I and IWS are collaboratively developing a federated search capability to support software reuse repositories. The initial implementation of the federated search web service will allow a single search that accesses both the PEO C4I NESI Collaboration Site and the PEO IWS SHARE repository. Results to date against a known database indicate that the search service is producing the expected results. The capability was fielded in October 2008.

- The following SHARE repository and Surface Domain asset / artifact[3] re-use activity occurred during the period from July 1, 2008 through September 30, 2008:

    - Updated SHARE operating processes to require that submitters pre-screen assets for intellectual property markings prior to adding them to the repository. This will improve SHARE management efficiency.

    - A total of 73 assets (53,763 artifacts) have been made available in SHARE; this quarter the Surface Domain:

        - Processed 11 registration applications (there are now a total of 270 total government / industry registrants).

---

[3] **Artifact**: Products of a system/software development life cycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

- Completed audits on two assets (Display System Open Architecture and parts of the Single Integrated Air Picture (SIAP) Common Reasoning Algorithm) and added them to SHARE.

- Completed a technical audit of Naval Research Laboratory's Multifunction Electronic Warfare project.

- Two audits are currently in process ((Multi Sensor Integration and additional files related to the DDG 1000 Total Ship Computing Environment Infrastructure (TSCEI) 4.2.2) in preparation for loading these items into SHARE. The TSCEI update will allow industry to research OA and computing infrastructure using TSCEI. Making the TSCEI assets available will allow industry to competitively develop improvements for DDG 1000 in the future and will also support competitive bidding for future CG(X) combat system contracts.

- Received 12 requests for assets and processed three. (July - Sept 2008). To date, 290 total requests for SHARE assets have been made; 157 have been fulfilled, 31 requests are outstanding, and 102 requests have been withdrawn.

- The OA version of the Aegis Display System (ADS) has been made available as the Display System Open Architecture (DSOA). DSOA provides an initial display capability for Aegis Training Center Build 2 ADS for Cruiser Modification Aegis Warfare System (CGMOD AWS), and establishes a foundation upon which additional components or functions can be developed that map to the Surface enterprise common display architecture.

C. Goal 3 – Change Navy and Marine Corps Cultures to Institutionalize OA Principles

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles. The primary mechanisms for achieving cultural change are formal training and communications and outreach.

- During this period, 58 individuals completed the Defense Acquisition University (DAU) OA continuous learning module, raising the total since its inception to 673.

- An additional six people completed the two-day OA Course offered by DAU and the C4I Domain.

III. OA Program Plan for the Surface Domain and Aegis Combat System

In order to make Naval combat systems more affordable, a transformation from building large end-to-end, stove-piped, platform-centric systems towards purchasing cross-platform capabilities is essential. The Surface Navy's strategy is based on sharing data and modularizing systems so programs can leverage each other's work ("buy once"),and reduce cycle time for fielding new capabilities. Toward this end, PEO IWS is realigning the combat system architecture to achieve commonality where appropriate using an evolutionary approach. The process of aligning surface combat systems to a common government-controlled component architecture with open, well-defined interfaces in conjunction with use of open and published commercial standards, where possible, will facilitate software and hardware reuse across ship classes. This will enable incremental improvements through a Rapid Capability Insertion Process (RCIP), including early identification of linkages to Science and Technology products, and foster innovation from participation by an increased number of companies and academia.

A first step in execution is to decouple combat system development from platform development while continuing to recognize the need for platform specific requirements. In addition, requiring competition for the full range of development, production and support activities at both the prime and subcontract level will enhance innovation and reduce costs. Rather than a single, large company producing a separate and unique combat system for each ship class and maintaining/upgrading that system over its life cycle, the Surface Navy is moving towards a competitive environment where many participants—including small businesses, academia, government labs and other non-traditional Department of Defense (DoD) companies—have opportunities to contribute capabilities and collaboratively deliver the right product for the best value. The Navy will adopt the best practice of obtaining at least Government Purpose Rights in software and technical data for the broadest range of design artifacts, assets and code practicable (except for products from Small Business Innovative Research (SBIR) programs). This strategy allows qualified vendors to compete for, and contribute to, Surface Navy combat systems at all levels, from component development and production, to system integration.

PEO IWS has already embarked on a competitive path for Aegis and is competing development for a range of components. Competition for the Platform System Engineering Agent (PSEA) functions for both the Aegis and SSDS is planned to begin in Fiscal Year 2012. The PSEA is responsible for end-to-end combat system performance; systems engineering configuration control, testing, training and logistics; integration of Government Furnished Equipment / Government Furnished Information; and technical support of in-service ships. Furthermore, the PSEA has the critical responsibility of integrating components, developed and/or modified by other contractors, into the combat system while ensuring end-to-end system performance and sufficient life cycle support for all new components.

A. Enabling Opportunities for Innovation and Competition in Surface Combat Systems which are fundamental to the value of OA.

The Surface Domain will continue to evolve its strategy for combat systems development and enhancement over the next 10-20 years. A Surface Navy Combat System Acquisition Management Plan (AMP) is under development and will document this strategy for the combat management systems (CMS) and associated software and hardware that comprise the Aegis combat system installed in the Ticonderoga-class (CG 47-class) cruisers and Arleigh Burke-class (DDG 51-class) destroyers, and Ship Self Defense System (SSDS) installed in aircraft carriers and amphibious assault ships. The development of the AMP is consistent with current DoD acquisition instructions (the DoD 5000 series, including Secretary of Navy Instruction 5000.2C), *Naval Open Architecture Contract Guidebook for Program Managers*, relevant US law, and program requirements. Once approved by ASN(RDA), the AMP will be reviewed and updated annually. PEO IWS will make the AMP available to qualified parties via SHARE.

The Navy intends to competitively procure follow-on capabilities and combat system life cycle support to address the requirements of Fiscal Year 2013 and beyond. The software development associated with Aegis and SSDS integration efforts will decrease as they become more modular. The modularity and use of COTS hardware and software in the Navy's objective architecture reduces the complexity of the work and the dependence on concurrent development of related capabilities, thus enabling other sources to obtain contracts to perform the development. The modular interfaces are being fully documented in government-managed specifications and software data artifacts. PSEAs will be required to deposit data and design artifacts in a designated on-line data repository that will allow the Navy to accumulate class-specific data and to share modular combat system data with other software developers in order to support future competitions. PSEAs will also be required to consider these items for reuse to the maximum extent practicable.

The Navy is producing fully-documented, government-defined specifications and class specific data for Aegis Weapons Systems modular interfaces. This documentation for Aegis combat system software componentization will be delivered with Aegis ACB 12, installed in USS JOHN PAUL JONES (DDG 53) in Fiscal Year 2012. Furthermore, the Government will have access to the objects and component descriptions, and interface definitions at the Aegis Advanced Capability Build (ACB) 12 Critical Design Review (CDR) in Fiscal Year 2010. This information will be used to support competition for the objects and components in follow-on ACBs. As the objective architecture is implemented in all Navy surface combatants, including Carriers, Amphibious, and Cruiser/Destroyer Class ships, the PSEA's role will become less platform specific. After delivery, testing and certification of the ACB 12 software programs, the documented design baseline will be available for future Aegis PSEA competitions.

In accordance with section 2320 of title 10, United States Code, and standard clauses in the Department of Defense Federal Acquisition Regulation Supplement, the Navy will obtain Government purpose or less restrictive rights in software and technical data that have been developed, in whole or in part, with Government funds. The Navy will structure its contracts to obtain at least Government purpose rights in the broadest range of design artifacts, assets and code practicable, and may negotiate to obtain those rights in other software and technical data where it makes good business sense. The intention is to make these items available to

appropriate parties via the SHARE Repository (or its successor repository) in order that warfighting applications and functionality developed in one ship class can be reused on other ship classes or platform types. Components selected and approved for reuse will be placed under configuration management control in a Common Asset Library (CAL) maintained in the SHARE or successor repository. This strategy establishes the model for the Navy to realize the Objective Architecture in CG(X) through significant reuse of software from current Program of Record (POR) programs. Section III.F provides further detail.

B. Describe how incremental improvements will be made to those systems such that upgrades can be accomplished more frequently and at lower cost.

The challenge for the Surface Navy is to modernize the in-service Fleet while developing the componentized combat system for ACB / Technology Insertion (TI). The modernization approach depends on common computer hardware refreshed on a defined cycle while the ACB cycle allows for software maintenance updates and fielding of war fighting capability improvements to keep ahead of the threat. A ship's hardware refresh rate depends on the scope of the upgrade and ship availability schedule, while the software refresh rate depends on the installed computing system's ability to support the new software build. The current plan is to define ACB software builds every two years and hardware TIs every four years.

The Surface Navy will continue to introduce competition as combat systems are being componentized, building on successful hardware competitions in Fiscal Years 2007 and 2008. The Navy is in the process of defining future ACB requirements and identifying system component developments that will be competed. In Fiscal Years 2009 and 2010, the Navy will define the requirements for ACB 2014 for each ship class. A key enabler for implementing competition is the government-defined architecture and validated interfaces conforming to the OA model and principles. When completed in December 2008, the draft Surface Domain Architecture Description Document (ADD) will fill this role by serving as the framework for future surface ship combat system software architectures. The ADD will define a common structure for allocating functionality to individual software components that can be reused across different combat systems as a part of a software product line rather than a platform-centric approach.

As an example of the impact of competition in an open business environment, a business case analysis conducted on the recently completed Common Display System (CDS) competition clearly shows the potential for economic benefits even as greater competition is introduced. By replacing the 41 variants of the currently fielded AN/UYQ-70 Advanced Display System with Human Systems Integration (HSI) and Open Architecture compliant systems, the Surface Navy is increasing commonality while decreasing unnecessary customization. Areas for potential cost avoidance include: Systems Development (NRE), Unit production costs and life cycle costs. It is estimated that CDS will result in a cost avoidance of over $1.2 billion across the system's lifespan. The simplified CDS family of displays will use remote processing and a single "plug-and-play" interface thus fully supporting the ACB/TI concepts that call for a separation of hardware and software.

RCIP is another mechanism that the Navy will employ to promote competition and to improve affordability. Figure 1 illustrates the RCIP that PEO IWS will use to provide faster transition of capability upgrades to the Fleet. RCIP allows capability development to proceed uncoupled from the ship schedules until the capability is sufficiently mature for transition, and then introduces it into the next two-year ACB for integration, test, certification, and fielding. RCIP-developed software components will be maintained in a CAL that will be part of the Surface Domain's asset repository capability.

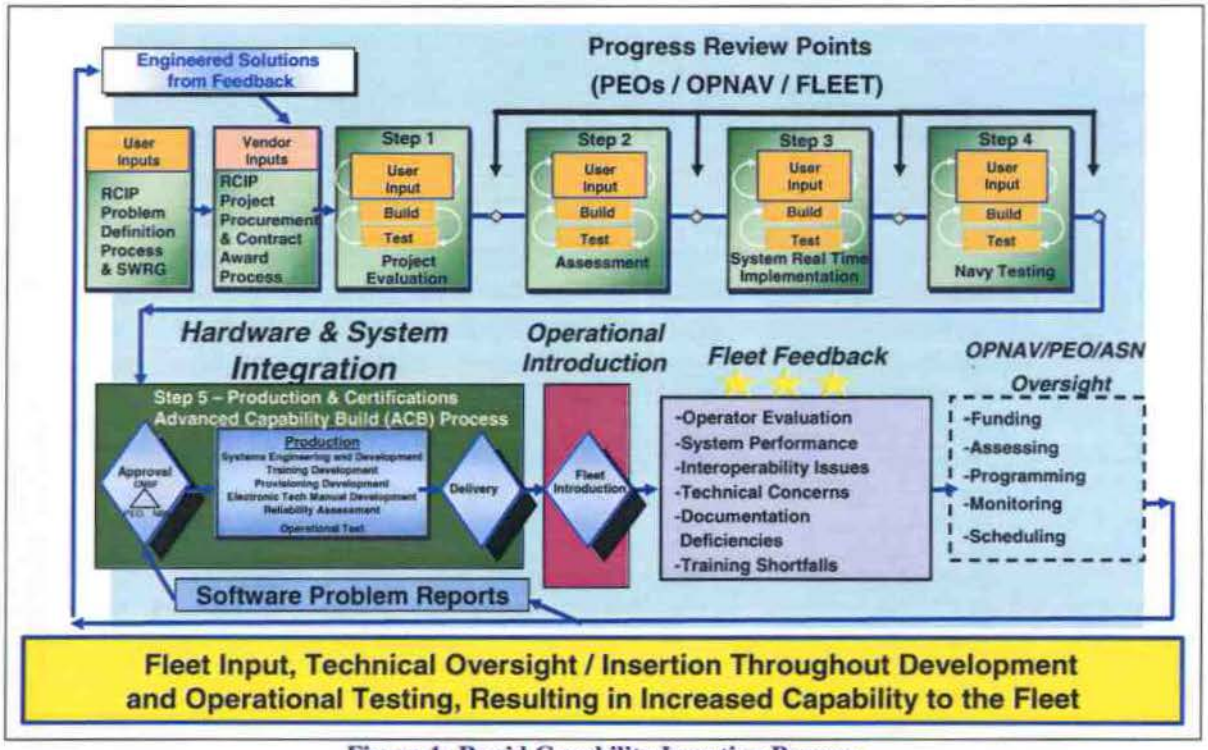


Figure 1: Rapid Capability Insertion Process

An RCIP component developer will compete on the merits of technology innovation and competence for the opportunity to develop, evolve or improve any one of several different components or subcomponents and solve problems as defined in a regular Broad Agency Announcement (BAA). Developer contracts will be awarded through open competition and available to all qualified vendors (i.e., small, medium, and large businesses, and Government labs). The Navy will compile a prioritized list of problems and performance improvement areas that will be published in a BAA process modeled after the Rapid Technology Transition processes open to all qualified bidders. Potential developers will submit a white paper addressing an area under the solicitation (either solving an operational problem or providing defined performance improvement) for review and then, if selected, will submit a full proposal for evaluation by the Navy. Development projects may have been initiated by another organization within the Department of the Navy such as the Office of Naval Research; another DoD Service; or a private company, as an independent research and development project, or a SBIR program effort. The Navy will continually evaluate new ideas and projects and compare their value against ongoing efforts to ensure that the fleet is obtaining the best products and capabilities.

The proposed RCIP component developers will be selected and funded in a three phase contract that consists of an initial study (Phase 1) a second (larger) implementation option (Phase 2), and a longer term product support role (Phase 3). As a part of the Phase 1 study the Component Developer will participate in the Integrated Project Review Team (IPRT) that consists of academia, labs and applicable PSEAs. This IPRT will provide technical support to the Developers and offer a forum for assessing test results and the integration effort associated with the project or product, providing a similar level of "peer review" used in PEO Submarine Programs. The Navy Program Manager will consider those factors and subject matter expert opinions of the IPRT when deciding which development projects are continued into Phase 2. Component Developers will complete the project work in Phase 2 and support integration testing, platform testing, and (if necessary) at-sea testing by the Component Developer and PSEA. The third phase of the contract will provide options to support a production software implementation and release.

C. Identify where software will be partitioned and componentized in order to leverage system design modularity.

PEO IWS is developing the ADD that describes the Surface Combat System Objective Architecture. The Objective Architecture defines the desired future end state for architecture convergence, as shown in Figure 2. The Navy will also maintain the Government-controlled architectural model that captures all approved component interfaces to the level where component compliance can be authenticated and coordinated. "Coordinated interfaces" are fully-specified in writing, controlled and managed by the Navy; "authenticated" means that the interface is tested for compliance before acceptance by the Navy. The PSEA will produce a system architecture document as part of the Aegis ACB 12 efforts which includes component level interface definitions. The Navy will hold competitions for the development of new or upgraded capabilities and require those capabilities to align to the objective architecture. The architecture and interface standards will be open and available to all appropriate venders who desire to compete. The Navy will control the architecture as well as the common components in the product line portfolio.

PEO IWS plans to align existing programs to the objective architecture where it makes business sense and will gradually populate a common component SHARE repository (or its successor) with reusable components that are aligned with the objective architecture. The selection process of reuse components will be coordinated by an architecture Integrated Product Team (IPT) and will use criteria such as cost, technical performance, alignment with the Surface Combat System Objective Architecture and new functionality requirements to guide its decision process. Those selected and approved for a specific configuration by the Navy Program Manager will be placed under configuration management control in the CAL for use in future ACBs. Strategies for using a single repository site and identifying the CAL status of a module will be investigated and developed. The key distinction between SHARE and CAL is that SHARE is a repository of all components deposited by SHARE participants while CAL status indicates that the specific component, wherever it is maintained, has been selected and recommended for reuse by the IPT.

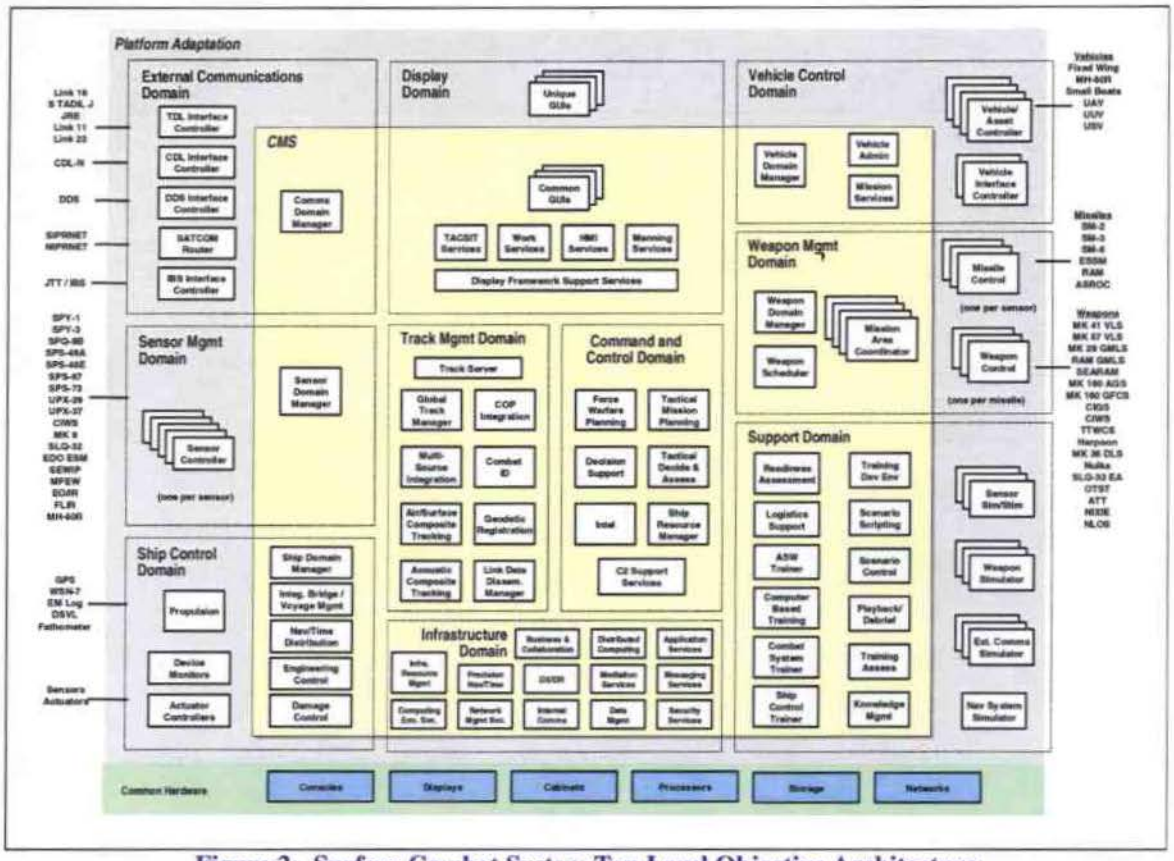


Figure 2: Surface Combat System Top Level Objective Architecture

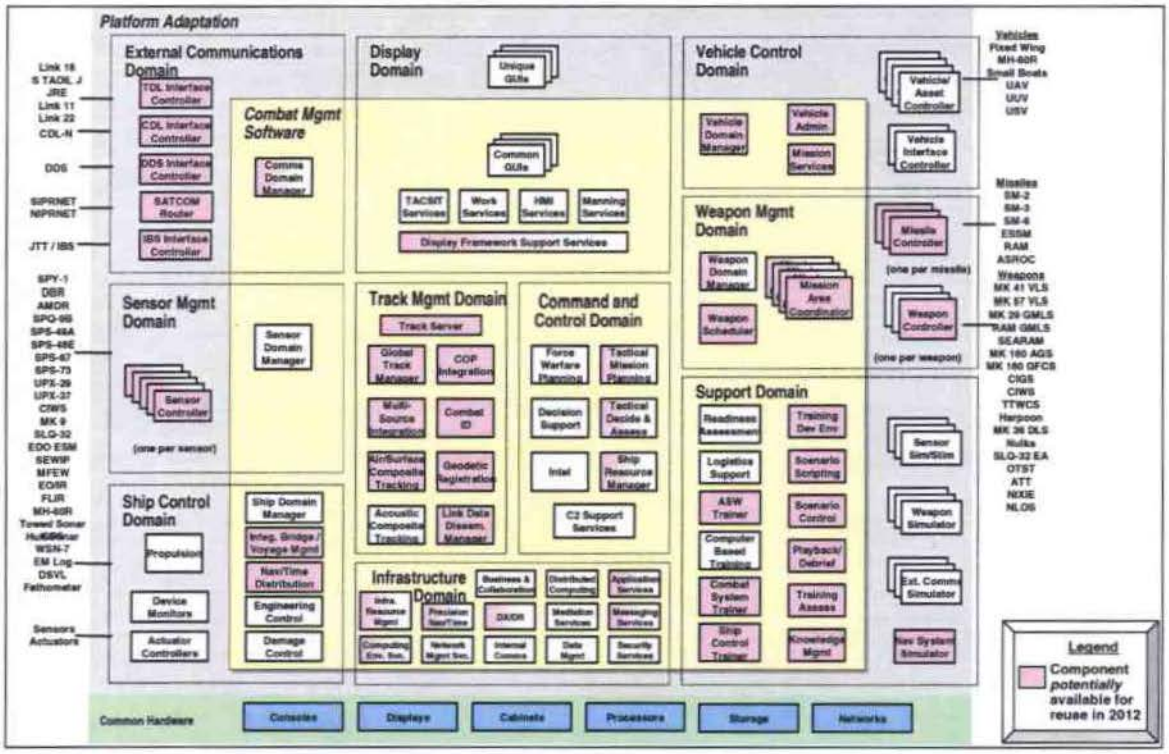


Figure 3: Components Potentially Available for Reuse after 2012.

The components available for potential reuse by multiple ship class combat systems after 2012 are illustrated in Figure 3. The Government will have access to the component objects and descriptions and interface definitions at CDR for Aegis ACB 12. The Government will use this information to compete the objects and components for the follow-on ACBs and for potential reuse across ship classes. The initial focus is on track management, sensor integration, vehicle control, and training. The Navy also intends to define common Application Program Interfaces for display and infrastructure services with a focus on published, well-defined interfaces to external communications resources and general resource management. The Navy will then begin to align weapon integration components to support and configure weapon suites with different weapons within a common weapon management core.

D. Detailed program plan for implementing OA for the Aegis combat system and Surface Domain.

The Surface Domain is implementing a combat system product line approach to the implementation of OA for the Aegis, SSDS and future Surface combat systems. This will yield an open combat system based on government-owned architecture and authenticated interfaces.

The first step in creating an OA combat system is decoupling computing hardware from software. Converting legacy systems to a distributed, COTS computing environment and modular application software is an investment that enables the OA approach. Once this investment is completed, future capability upgrades requiring updated hardware will be more affordable. However, the rate of transitioning our in-service combat system computing systems to a network-based open computing environment is controlled by the number of ships we can afford to upgrade within our budgeted industrial capacity with no adverse effects on Fleet Response Plan requirements.

The initial instantiation of decoupling the computing hardware from the software is in USS NIMITZ (CVN 68) and USS BUNKER HILL (CG 52) Combat Management Systems, both of which began in Fiscal Year 2008, as shown in Figure 4 and Figure 5. Once the Navy has decoupled the hardware from the software, both SSDS and Aegis combat systems will use common COTS products that comply with middleware standards.

SSDS used modular design and development to fulfill self defense requirements across multiple platform types with existing combat system elements. The SSDS MK 2 modular architecture provides flexibility to accommodate change to threats, sensors, weapons, requirements, and ship class modifications. The Fiscal Year 2009 Presidents Budget supports completing the transition to SSDS Mk 2 OA by 2017. The actual rate of modernization will be driven by fleet availability and future budgets.

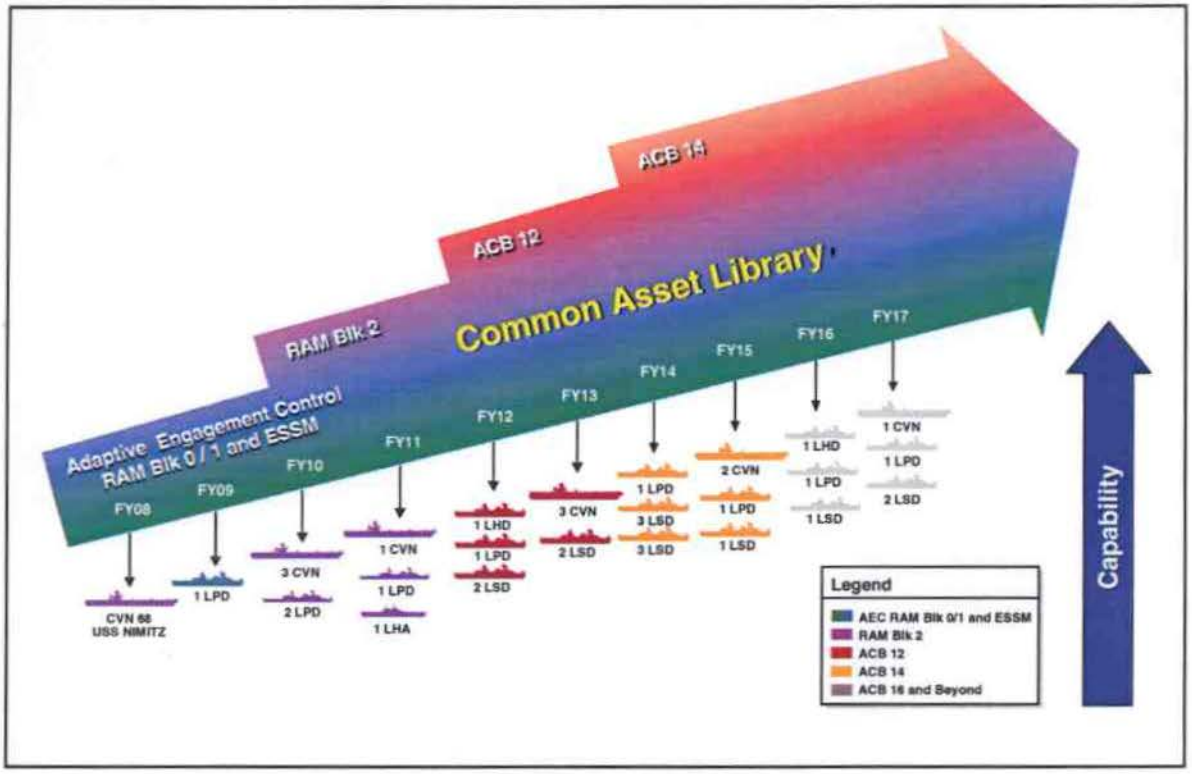


Figure 4: SSDS Transition to Open Architecture

Aegis was initially designed as an integrated and tightly coupled hardware and software Combat System. CG 47 class ships will complete transition to a network-based OA environment in 2016. Delivery of the OA-based ACB 08 / TI 08 (CR2) hardware and software to USS BUNKER HILL (CG 52) began in Fiscal Year 2008. Planning estimates for the DDG 51 class show that by transitioning three ships per year in Fiscal Years 2012 to 2016 and six ships per year from Fiscal Year 2017 onward, the 62-ship DDG 51 class will complete the transition to network-based open architecture environment in 2025. The actual rate of modernization will be driven by fleet availability and future budgets.

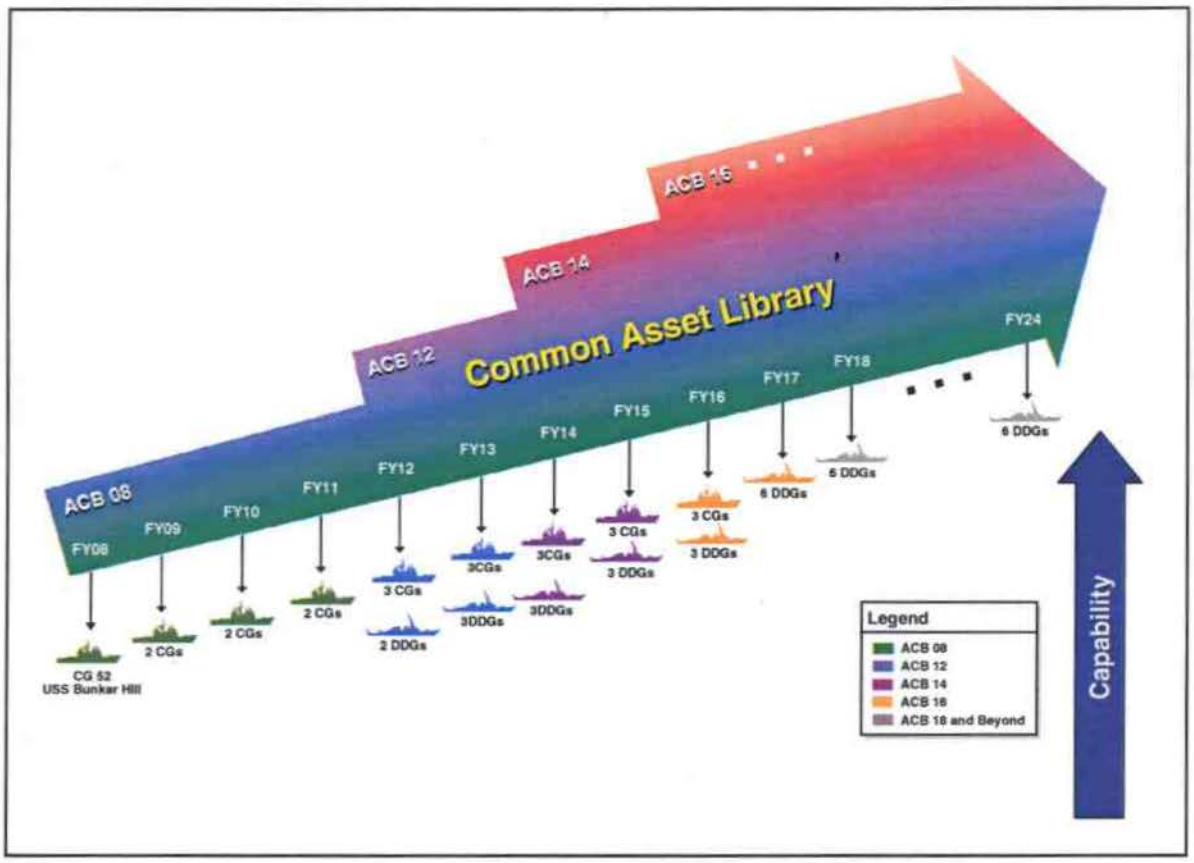


Figure 5: Aegis Combat System Transition to Open Architecture

Initiation of the Surface Navy OA Combat System transition started with Aegis ACB 08/TI 08 and continues with the componentization efforts in Aegis ACB 12. The Navy will start ACB 14 development in Fiscal Year 2009 by defining requirements and estimating costs. Following that, PEO IWS will competitively solicit industry projects where research and development is appropriate; competitively establish contracts for implementation of well-defined requirements; and, provide support from the current PSEA contractors to ensure successful integration. The exact technical scope and contracting approach depends upon the requirements of each ACB and program funding. As the Aegis Modernization and CVN 78 ACB 12 work completes, PEO IWS will also compete subsequent PSEA contracts that would then be used to integrate and test ACB 14 and support Fiscal Year 2014 ship availabilities. In parallel with the integration of ACB 14, PEO IWS will work with OPNAV to define ACB 16 and similarly establish capability development projects and software improvements.

Figure 6 shows the current alignment schedules that will be part of the component definition and alignment timeline across all ship classes. The figure shows the schedule that begins the alignment of development efforts currently underway, including: Aegis OA, DDG 1000 TSCE and SSDS OA. Efforts to complete the objective architecture definition, combat system interfaces and new processes are shown at the top of the schedule.

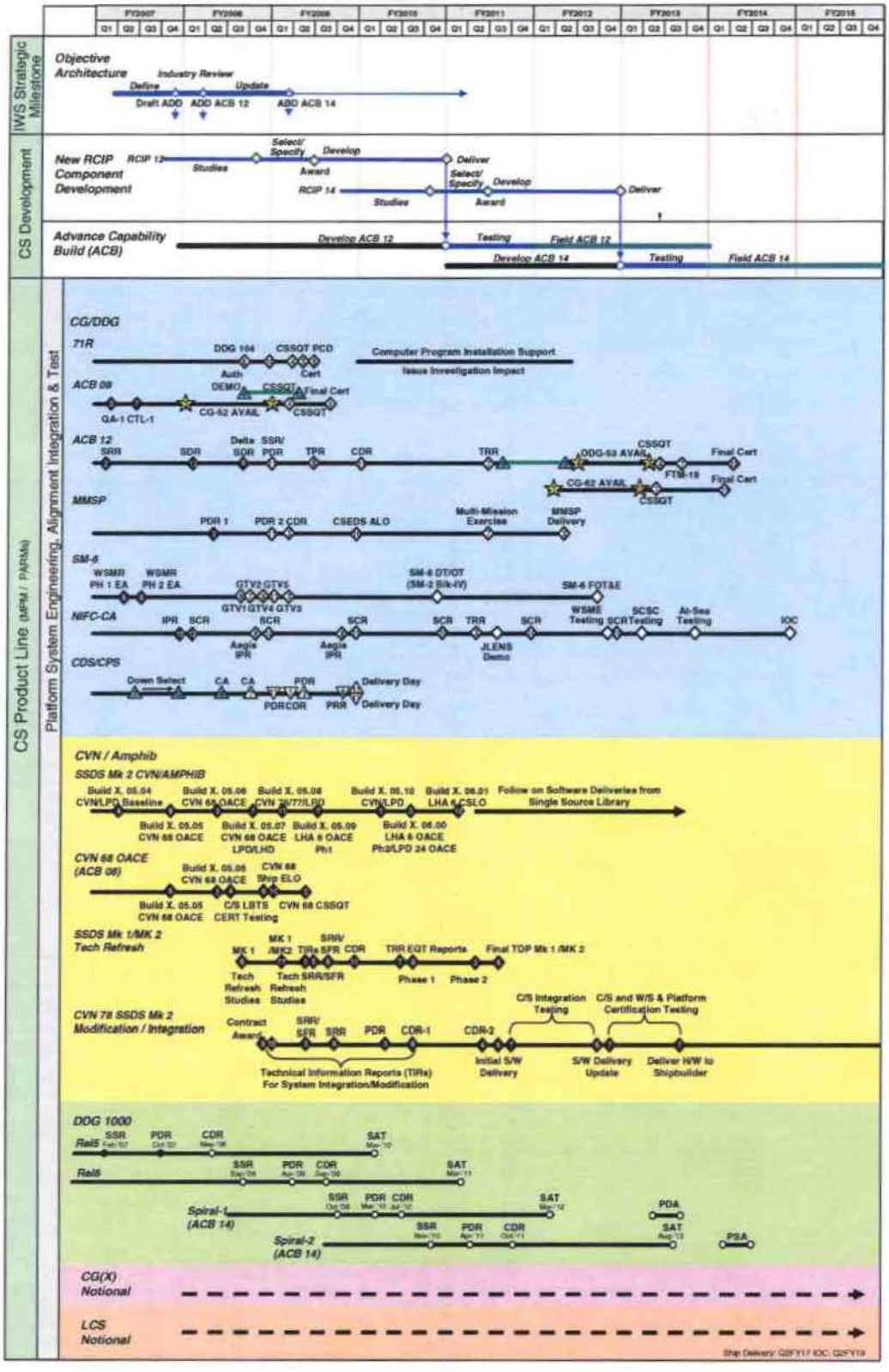


Figure 6: Component Definition Timeline across Ship Classes (Acronym List is in Table 1 below)

ACB	Advanced Capability Build	GTV	Guidance Test Vehicle	SCR	Software Certification Recommendation
ADD	Architecture Description Document	H/W	Hardware	SCSC	Surface Combat System Center
ALO	Aegis Light Off	IOC	Initial Operational Capability	SDR	System Design Review
C/S	Combat System	IPR	In-Process Review	SFR	System Functional Review
CA	Contract Award	LBTS	Land Based Test Site	SRR	System Requirements Review
CDR	Critical Design Review	MMSP	Multi-Mission Signal Processor	SSR	Software Specification Review
CSEDS	Combat System Engineering Development Site	OACE	Open Architecture Computer Environment	TDP	Technical Data Package
CSSQT	Combat System Ship Qualification Trial	PCD	Platform Certification Date	TIR	Technical Insertion Review
ELO	Engineering Light Off	PSA	Post Shakedown Availability	TPR	Test Program Review
EQT	Environmental Qualification Test	RCIP	Rapid Capability Insertion Process	TRR	Test Readiness Review
FOT&E	Follow-on Test and Evaluation	S/W	Software	WSMR	White Sands Missile Range
FTM	Flight Test Mission	SAT	Software Acceptance Test		

Table 1: Acronyms for Figure 6 (above)

E. How will program plans ensure alignment between system development schedules, development contracts, Navy budget, program management structure, and the Aegis and Surface Navy Combat Systems modernization program?

Managing the roles and responsibilities between key players will ensure alignment across all facets of scheduling, development, personnel and budget for combat system modernization programs. Table 2 provides a summary of the roles and responsibilities between Government and industry organizations. The framework within which PSEAs, Combat System Managers, Warfare System Product Line contractors, and Developers must work requires collaboration among industry partners and the Government to achieve success. Figure 6, described previously, illustrates the alignment of the system development schedules.

Title	Responsibility	Organization
System Integration Program Manager (SIPM)	Leads systems engineering coordination and management of PEO IWS effort related to each ship program. Represents the systems PEO in creation of PM-to-PM agreements. Serves as primary interface to the manager of the ship program (SPM) (i.e. PEO Carriers, PEO Ships, etc). Coordinates requirements with OPNAV.	Government
Warfare System Product Line (WSPL) Program Manager	Accountable and responsible authority for PEO IWS product lines to include combat systems, sensors, weapons, and weapon systems.	Government (MPM)
Combat Systems Architect (CSA)	Responsible for the establishment and management of enterprise combat system architecture that supports all surface ship platforms. Responsible for establishment of enterprise "system" requirements and requirement allocations to architecture domains.	Government
Combat System Manager (CSM)	Accountable authority for the acquisition of all surface platform combat systems.	Government
Platform System Engineering Agent (PSEA)	Responsible for design, system engineering and managing integration of GFE capability upgrades and other Government furnished products into each ship class combat system with this Government-controlled architecture. Responsible for end-to-end combat system performance.	Contractor
Developers	Responsible for development of technology capabilities and components as designated by the Navy and to be integrated by PSEAs.	Contractor

Table 2: Roles and Responsibilities

F. Methodology and schedule for incrementally opening the Surface Domain combat system.

Implementing the Surface Combat System objective architecture provides the path towards incremental improvements. In order to attain the objective architecture for future ship combat systems, the Navy must complete the following:

- Decouple hardware from software through incorporation of middleware standards;
- Procure COTS hardware displays and processors;
- Align Aegis Modernization, SSDS/CVN 78 and DDG 1000 architectures, where appropriate, to integrate common components that align with the Surface Combat System Objective Architecture (Figure 6).

CG(X) will be the first complete Surface Combat System composed from extensible and new development components. Combat system integrators will utilize Government directed common re-useable components with the necessary platform specific components. Capabilities from different ship class Combat Systems, when integrated together and supplemented with CG(X) unique functionality, will form the CG(X) Combat System. Reuse or extended components of known pedigree and performance from Aegis, SSDS/CVN 78, and DDG 1000 will be used to minimize new development. This is shown in Figure 7 below.

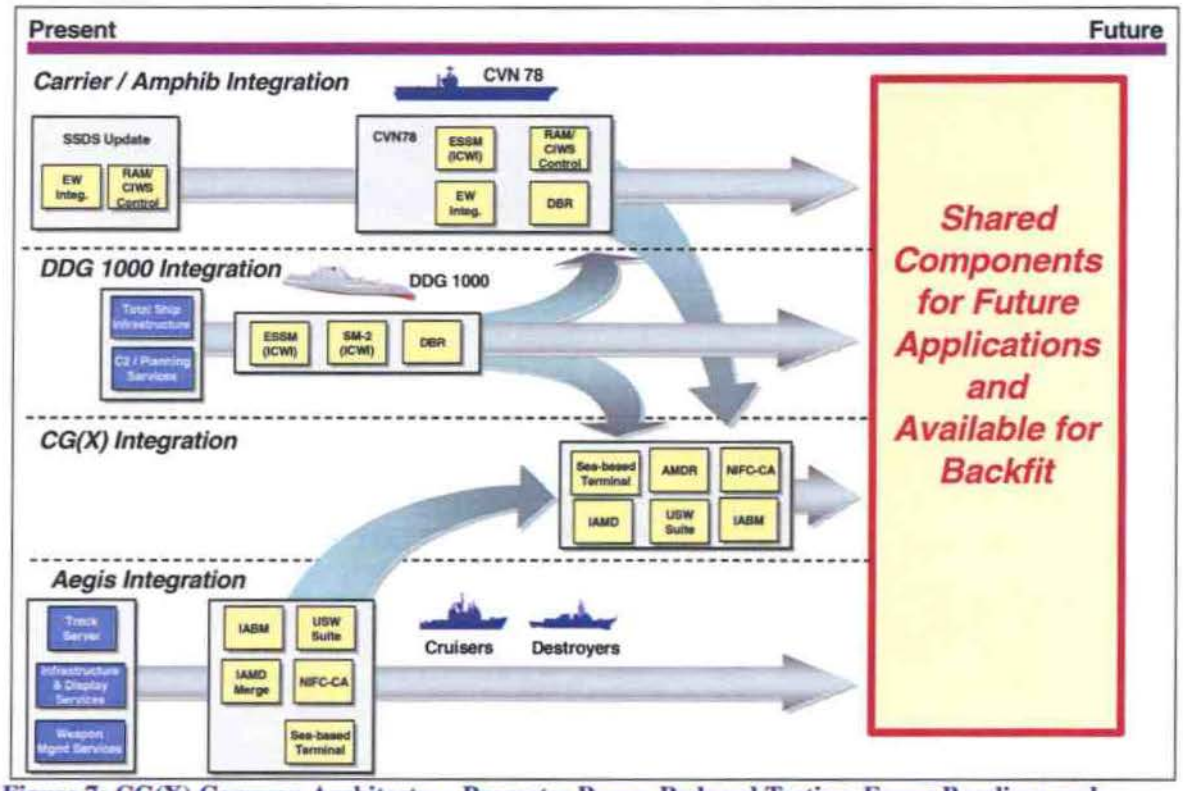


Figure 7: CG(X) Common Architecture Promotes Reuse, Reduced Testing, Fewer Baselines and Affordability

Refer to Figures 4 and 5 for SSDS and Aegis installation schedules, respectively. Figure 6 shows the schedule for defining components across ship classes.

G. A plan for measuring discrete progress toward achieving a fully open systems Surface Domain commensurate with the introduction of the 2012 Aegis Baseline (ACB 12).

Figures 4 and 5 show the transition to a network-based OA computing environment and provide key milestones to monitor program progress in decoupling the hardware and software. Additionally, Figure 6 shows the development plan in transitioning to open systems within the Surface Domain. This incremental plan will implement the Objective Architecture (as described in the Architecture Description Document) which will deliver a fully developed, open architecture combat system for CG(X) and for backfit to Aegis, SSDS, LCS and DDG-1000.

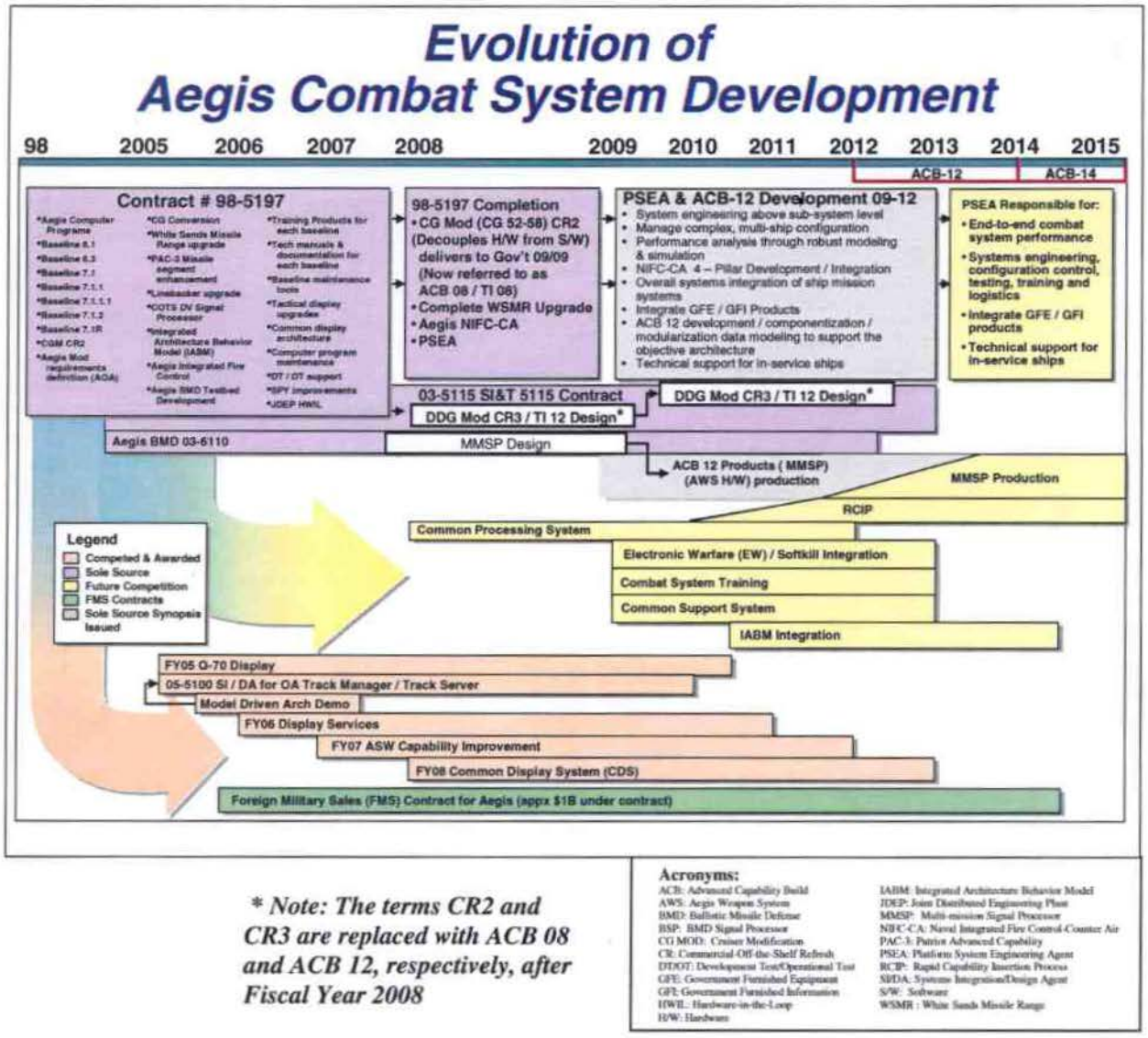
H. Potential future benchmarks to govern the transitions from sole source to competitive development during the period 2010 to 2013.

As previously discussed in section III.A, the Navy projects that it will produce fully-documented, government-defined specifications and class specific data for Aegis modular interfaces by Fiscal Year 2012. Furthermore, the Government intends to have access to legacy Aegis objects and component descriptions, and interface definitions at the Aegis ACB 12 Critical Design Review (CDR) in Fiscal Year 2010. The Government will use this information to compete the objects and components for follow-on ACBs. This information will be used to generate competitive solicitations for award in 2011 through 2013. The specific components and functions to be competed during this period are dependent on funding and ACB definitions.

The need to insert capability changes will be driven by four demand signals: warfighter requirements from evolving threats, operational lessons learned from deployments, new technologies from the advanced development community (DARPA, ONR, etc.), and sound business case analysis that will improve cost performance of the deployed combat systems. The timeline for integrating capabilities into specific ACBs via RCIP and other capability development efforts will depend on the maturity of the candidate components.

The objective architecture will be implemented on all Navy surface combatants, including Carriers, Amphibious, and Cruiser/Destroyer Class ships. After delivery, testing and certification of the ACB 12 software program, the documented design baseline will be available for future component developer competitions.

The Navy will use competitive procurements to support development and testing of future ACBs. The software development associated with Aegis and SSDS integration efforts will decrease as they become more modular (Figure 8). The effect of this change will start immediately after the completion of ACB 12, when most improvements to track algorithms will be localized to a single component. Over the next several ACBs, additional surface combat system modules will be adapted for enterprise reuse and transitioned into the CAL. The modularity and use of COTS hardware and software in the Navy's objective architecture reduces the complexity of the work and the dependence on concurrent development of related capabilities, thus enabling other sources to perform. The modular interfaces are being fully documented in government-managed specifications and software data. Under current contracts, PSEAs will be required to use an on-line data repository that will allow the Navy to accumulate class-specific data and to share modular combat system data with other software developers in order to support future competitions.



** Note: The terms CR2 and CR3 are replaced with ACB 08 and ACB 12, respectively, after Fiscal Year 2008*

Figure 8: Evolution of Aegis Combat System Development Contracts

I. How the Surface Domain will transfer the lessons learned from this initiative to remaining surface ship combat system development programs.

Our work with Aegis modernization has revealed that we need to manage our expectations with respect to the pace of change possible, and it has convincingly demonstrated the necessity to ensure that our transition to a product line approach avoids similar challenges in the future. Major technical lessons include the need for higher level architectures that allow commonality and promote interoperability across programs to the details of how large numbers of ships can transition their infrastructure within the constraints of the nation's industrial capacity while maintaining sufficient Fleet availability.

Approaches to achieving standards based architectures and selecting COTS equipment for the computing plant have transitioned from a prescriptive model in the Open Architecture Computing Environment (OACE) to a broader approach to standard profiles for development of combat systems. The lessons we are learning during this transition are applicable across all of the Navy's Domains and are being shared with the various communities. Establishment of an architecture and design that permit reuse of components in other legacy and/or new systems, and conversely allows the use of components from other systems has taught us the complexity of the issue, and has helped us learn what toolsets are needed to permit exchange of program components and data with the appropriate rights in software and technical data. In that regard, as shown in Figure 7 and discussed in Section III.F, we are moving to establish and refine asset repository capabilities not only within the Surface Domain (such as SHARE), but across other Domains as well. These capabilities will facilitate the reuse of components across various programs and have taught us the importance of rigorously managing our intellectual property rights (IPR) to ensure we obtain and exercise the IPR necessary to enable OA, generally, and asset reuse, specifically.

On the business and cultural front, the Navy is learning that it is difficult to change not only its relationships with business partners, but also the internal processes and relationships necessary to achieve broader competition. There are challenges associated with extending the Navy's vendor base beyond prime systems developers. Work with the prime contractors within the Navy's program office has taught PEO IWS where the points of mutual benefit have been productive, and where the Navy needs to find new models to apply. A key focus area of Naval OA is working with program offices and field activities to develop the training and tools needed to allow government professionals to understand what OA is about and to prepare themselves to think innovatively within that framework. The lessons the Navy is learning as it modifies contracts and negotiates with its industry partners will be captured and made available to other programs and Domains as we implement the current model now being put in place by PEO IWS and the OAET. A prime mechanism for sharing this acquisition knowledge, including information on how to use contractual incentives to encourage adoption of open business practices, is the *OA Contract Guidebook* which is revised annually.

J. Examples of, or plans to address, inter-domain and intra-domain collaboration/dependencies (such as re-use of other domain components, joint acquisition efforts using OA principles, etc.).

The Surface Domain is in active collaboration with other domains. For example, PEO C4I is involved with PEO IWS in developing Surface Combat System Architecture strategies. PEO IWS is also involved in PEO C4I's and SPAWAR's Early Adopters efforts in order to ensure alignment and integration between future C4I and combat systems. PEO IWS and C4I have entered into a Memorandum of Agreement in order to synchronize development strategies and execution of the Consolidated Afloat Network and Enterprise Services (CANES), Consolidated Net-centric Data Environment, and Undersea Warfare Decision Support System (USW DSS) activities. The critical "Early Adopters" efforts will define a coordinated and integrated program plan that is consistent with the proposed Integrated Shipboard Networking System / CANES program plan and the current USW DSS development and fielding plan. Each appropriate program office will participate in a cross-PEO Configuration

Management/Configuration Control Board. The purpose of this board is to maintain managerial oversight and control of the architecture elements including software and hardware in support of a Services Oriented Architecture construct.

This collaboration has included creation of reference models to map component portfolios, identify gaps and overlaps, and determine areas where agreement on standards is needed. Several scenarios have been proposed to demonstrate that Early Adopters can assimilate the Display Local Area Network from the Combat System. One scenario has been successfully run. These and similar models can prove the feasibility of architectures prior to codifying requirements.

As future open combat systems are developed, the Surface Domain will continue to engage other domains, including the sharing of the Surface Domain ADD with other domains. This will help ensure component development alignment, where appropriate, for reuse in Surface Domain combat systems. Additionally, the SHARE repository is accessible to other domains and provides the basis for supporting collaboration. Finally, the Surface Domain has used lessons learned from Team Submarine's A-RCI efforts to develop the Surface Navy RCIP.

Within the Surface Domain, PEO IWS is responsible for the CDS and Common Processing System (CPS) programs that provide core display and processing systems in support of the common objective architecture for combat systems. The CDS contract was competitively awarded in November 2007 while the CPS Request for Proposal was released in March 2008 with award pending Government selection. Both CDS and CPS provide processing elements for the objective architecture being defined in the ADD; Aegis ACB12 and other programs will use items from these programs. Specifically, DDG 1000 is currently committed to using CDS and CVN 78 SSDS will be using CDS and CPS.

IV. Summary

The Fourth Naval Open Architecture Report to Congress provides an update of NOA program accomplishments since the Third Report was submitted to Congress in August 2008, focusing on the period of July 1 to September 30, 2008. It also provides the Aegis Combat System OA implementation program plan and answers questions in the report of the SASC on the NDAA for Fiscal Year 2009 (Report No. 110-335).

The Naval Enterprise continues to make progress in the implementation of OA. Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements more rapidly and efficiently. By shortening the development timeline, using full and open competition to leverage non-developmental software, and focusing Fleet-identified problems, the Navy will obtain more capable and effective combat systems. Continued progress across the Naval Enterprise is anticipated next quarter and will be reported in the Fifth and subsequent Reports to Congress.

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

IN REPLY REFER TO

ACTION MEMO

September 15, 2008

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

SUBJECT: Aircraft Carrier Force Structure - Disposition of USS JOHN F KENNEDY (CV 67)

- Mr. Secretary, request you sign TAB A and forward with TAB B to the Chairman of the Defense Committees.

- Submission of this information is directed by the Fiscal Year 2007 National Defense Authorization Act (FY 07 NDAA) Conference Report 109-702. You responded last year with an interim letter dated 21 September 2007 (TAB C), pending the results of a classified study. The due date for this report is no later than 1 October 2008.

- TAB B provides a discussion in which Navy determined that transferring ex-USS JOHN F KENNEDY (CV 67) to a Donee as a museum is feasible. Subsequent to January 2009, the Navy plans to strike ex-USS JOHN F KENNEDY from the Naval Vessel Register and advertise the ship as available for donation transfer under the authority of Title 10, United States Code, Section 7306, for use as a public museum/memorial in the United States.

- Prior to donation transfer, the hull mitigation requirements above must be accomplished. These modifications are considered to be permanent, which will eliminate the viability of the ship being available for recall from the Donee in the event of a national emergency.

RECOMMENDATION: SECNAV sign TAB A.

COORDINATION: TAB D

ATTACHMENTS:
As stated

19 Sep 08
AASN
RELEASE
9/19

Prepared By: CDR Mark J. Knollmueller, DNS-6B, (703) 695-5756

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 19, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed unclassified report provides information regarding the current status and planned disposition of the ex-JOHN F KENNEDY (CV 67).

Specifically, the Navy has determined that the ship will continue to be retained on the Naval Vessel Register until the planned commissioning of USS GEORGE H W BUSH (CVN 77) in January 2009, as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act. The Navy will then redesignate the ex-JOHN F KENNEDY as available for donation transfer and use as a public museum/memorial in the U.S. under the authority of Title 10, United States Code, § 7306.

The Department has completed a classified study regarding treatment of structural details of the ex-JOHN F KENNEDY that must be accomplished prior to donation transfer of the ship for museum/memorial use. The modifications are considered to be permanent, which will eliminate the viability of the ship being available for recall from the Donee in the event of a national emergency. The Navy will maintain the USS KITTY HAWK (CV 63) in a retention category upon her decommissioning in January 2009 until the commissioning of USS GERALD R FORD (CVN 78), planned for September 2015.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Attachment:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 19, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed unclassified report provides information regarding the current status and planned disposition of the ex-JOHN F KENNEDY (CV 67).

Specifically, the Navy has determined that the ship will continue to be retained on the Naval Vessel Register until the planned commissioning of USS GEORGE H W BUSH (CVN 77) in January 2009, as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act. The Navy will then redesignate the ex-JOHN F KENNEDY as available for donation transfer and use as a public museum/memorial in the United States under the authority of Title 10, United States Code, § 7306.

The Department has completed a classified study regarding treatment of structural details of the ex-JOHN F KENNEDY that must be accomplished prior to donation transfer of the ship for museum/memorial use. The modifications are considered to be permanent, which will eliminate the viability of the ship being available for recall from the Donee in the event of a national emergency. The Navy will maintain the USS KITTY HAWK (CV 63) in a retention category upon her decommissioning in January 2009 until the commissioning of USS GERALD R FORD (CVN 78), planned for September 2015.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Attachment:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 19, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed unclassified report provides information regarding the current status and planned disposition of the ex-JOHN F KENNEDY (CV 67).

Specifically, the Navy has determined that the ship will continue to be retained on the Naval Vessel Register until the planned commissioning of USS GEORGE H W BUSH (CVN 77) in January 2009, as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act. The Navy will then redesignate the ex-JOHN F KENNEDY as available for donation transfer and use as a public museum/memorial in the U.S. under the authority of Title 10, United States Code, § 7306.

The Department has completed a classified study regarding treatment of structural details of the ex-JOHN F KENNEDY that must be accomplished prior to donation transfer of the ship for museum/memorial use. The modifications are considered to be permanent, which will eliminate the viability of the ship being available for recall from the Donee in the event of a national emergency. The Navy will maintain the USS KITTY HAWK (CV 63) in a retention category upon her decommissioning in January 2009 until the commissioning of USS GERALD R FORD (CVN 78), planned for September 2015.

A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Attachment:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

September 19, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In response to Conference Report 109-702 accompanying the Fiscal Year 2007 National Defense Authorization Act, the enclosed unclassified report provides information regarding the current status and planned disposition of the ex-JOHN F KENNEDY (CV 67).

Specifically, the Navy has determined that the ship will continue to be retained on the Naval Vessel Register until the planned commissioning of USS GEORGE H W BUSH (CVN 77) in January 2009, as required by Section 1011 of the Fiscal Year 2007 National Defense Authorization Act. The Navy will then redesignate the ex-JOHN F KENNEDY as available for donation transfer and use as a public museum/memorial in the U.S. under the authority of Title 10, United States Code, § 7306.

The Department has completed a classified study regarding treatment of structural details of the ex-JOHN F KENNEDY that must be accomplished prior to donation transfer of the ship for museum/memorial use. The modifications are considered to be permanent, which will eliminate the viability of the ship being available for recall from the Donee in the event of a national emergency. The Navy will maintain the USS KITTY HAWK (CV 63) in a retention category upon her decommissioning in January 2009 until the commissioning of USS GERALD R FORD (CVN 78), planned for September 2015.

A similar letter has been sent to Chairmen Levin, Inouye, and Skelton. If I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Attachment:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

DISPOSITION OF
USS JOHN F. KENNEDY (CV 67)

Prepared by
Naval Sea Systems Command
September 2008

DISPOSITION OF USS JOHN F. KENNEDY (CV 67)

I. Introduction

Pursuant to Conference Report 109-702 accompanying the fiscal year 2007 National Defense Authorization Act, Section 1011, the Secretary of the Navy shall report to the Congressional defense committees no later than October 1, 2007, regarding alternatives for the final disposition of USS JOHN F. KENNEDY (CV 67). Specifically, Conference Report 109-702 stated:

> *The conferees further expect that, upon decommissioning from the U.S. Navy and completion of the ship's inactivation availability, the Navy will maintain CV–67 in a state of preservation (dehumidification, cathodic protection, and configuration control) pending determination of final disposition. In the event it is determined that CV–67 is to be retired from operational status, the Secretary of the Navy shall evaluate other alternatives for final disposition, to include maintenance in a reduced mobilization status, donation as a museum article, or striking from the naval vessel registry; and report the findings with the Secretary of the Navy's recommendation to the congressional defense committees not later than October 1, 2007. Under all circumstances, the Navy shall retain custody of CV–67 at least until commissioning of CVN–77. If the aircraft carrier is transferred from the custody and control of the Navy, the Secretary of the Navy shall require as a condition of such transfer that the transferee, upon request of the Secretary of Defense, return the vessel to the United States. In such a case, unless the transferee is otherwise notified by the Secretary of the Navy, the title to the vessel shall revert immediately to the United States.*

On September 21, 2007, the Secretary of the Navy submitted a report to the Congress advising that the Navy had initiated a classified study regarding the treatment of structural details of JFK's hull that is necessary to determine the ability to use her as a museum without causing irrevocable changes, and that the Navy expected to report to the Congressional defense committees by October 1, 2008 the findings of this study along with the Secretary of the Navy's recommendation on final disposition of ex-JOHN F. KENNEDY.

II. The decommissioning and inactivation of USS JOHN F. KENNEDY (CV 67)

Pursuant to the authority provided in the fiscal year 2007 National Defense Authorization Act, Section 1011, the accomplishment of towing preparations and safe stowage inactivation work began on March 30, 2007 in Mayport, FL and completed on schedule. On July 26, 2007, the ship departed Mayport, FL under tow to Naval Station Norfolk, VA, arriving on July 31, 2007. The ship's tow to the Navy's inactive ship maintenance facility in Philadelphia, PA was delayed due to water depth concerns identified by the Delaware River Pilots Association in July 2007. The Navy accomplished dredging acceptable to the Pilots Association in the vicinity of Pier 4 in Philadelphia, and the ship was safely towed, arriving on March 21, 2008, and is safely secured to the pier.

The final phase of the ship's inactivation, primarily cleaning of the ship's fuel oil tanks, is in progress and scheduled to complete by December 30, 2008. Artifacts that were deemed to have historical value have been removed from the ship and transferred to the Curator of the Navy for preservation and storage. These items include: the ship's bell, a replica of George Washington's

sword (a sponsor gift from Caroline Kennedy), the ship's ready room chairs, items and furniture from the Captain's inport cabin, and various plaques and artwork.

As required by the FY07 National Defense Authorization Act, the Navy is maintaining the ship in a state of preservation (including configuration control, dehumidification, cathodic protection, and maintenance of spares) that would allow for reactivation in the event JFK is needed in response to a national emergency.

III. Results of the study regarding treatment of classified structural details of the hull of USS JOHN F. KENNEDY (CV 67)

The ex-JOHN F. KENNEDY shares classified structural details and arrangements with active-duty NIMITZ-class aircraft carriers. There is significant public interest in ex-JOHN F. KENNEDY becoming a ship museum. If the ship is transferred to a U.S. municipality or non-profit organization for use as a museum/memorial, the Navy would have little or no control over public access to currently classified structural details in the ship. Hence, the Navy initiated a study to identify the similarities between the classified areas of the ex-JOHN F. KENNEDY and NIMITZ-class ships, and to determine the mitigation methods required to remove, enclose or permanently cover sensitive areas from public access. The purpose of the mitigation methods is to prevent disclosure of critical classified structure that is shared with NIMITZ-class hulls.

Because ships of the NIMITZ-class will remain in service for several decades, the following mitigation work must be accomplished on ex-JOHN F. KENNEDY prior to donation transfer:

- 170 tanks and voids on the fourth deck and below, and 44 tanks and voids on the second and third decks, must be completely filled with foamed concrete to eliminate public access, including that of museum maintenance staff. These spaces contain classified structure and connection details. The total weight of foamed concrete needed to fill all of the identified spaces is approximately 19,000 long tons, at a density of 64 pounds per cubic foot. This is well within the operational loadout displacement of the ship.
- False bulkheads must be installed and filled with foamed concrete in the void created between the false bulkheads and the side protection system holding bulkheads. The total weight of false bulkhead structure and foamed concrete fill is approximately 1,150 long tons.
- Each compartment below the lowest armored deck will need to have access to permit expected inspections and maintenance by the ship's new owner, as well as to allow the passage of visitors for expected tours of machinery or magazine spaces. A minimal number of fixed openings through this deck will be retained for these purposes. For such fixed openings, the armored hatches must be removed and disposed of as classified material. The exposed edges of the opening in the lowest armored deck will have a wide coaming installed, to hide the deck thickness from public view as they pass on tours or inspections. The surrounding deck of the opening must be filled with concrete to level out the deck and be flush with the new coaming. Additional paint or tiling will be added above the concrete to improve the appearance or maintenance of the area. All other hatches must be welded shut.

- All openings and hatches through the lowest armored deck in the way of the weapons elevators must be modified using the disposal, coaming and concrete method described above.
- All hatches or manholes leading to void spaces that are filled with foamed concrete must be welded in place once the cement fully cures.
- Steel plating must be added to the exterior and interior hull of the ship to prevent direct access to the armor hull plating.
- In addition to the physical mitigation work required to ex-JOHN F. KENNEDY to enable the ship to be donated for public display as a museum/memorial, any ship drawings and documents necessary for the maintenance of the ship as a museum must be sanitized and declassified for public release. These drawings are expected to include the Booklet of General Plans, Hull Scantling Drawings, and Damage Control Plates.

IV. The disposition of ex-JOHN F. KENNEDY (CV 67)

As required by the Fiscal Year 2007 National Defense Authorization Act, Section 1011, the Navy will retain custody of ex-JOHN F. KENNEDY until commissioning of USS GEORGE H. W. BUSH (CVN 77), currently scheduled for January 2009.

Subsequent to the commissioning, the Navy plans to strike ex-JOHN F. KENNEDY from the Naval Vessel Register and advertise the ship as available for donation transfer under the authority of Title 10, United States Code, Section 7306, for use as a public museum/memorial in the U.S.

Prior to donation transfer, the hull mitigation requirements addressed above must be accomplished. These modifications are considered to be permanent, which will eliminate the viability of the ship being available for recall from the Donee in the event of a national emergency. However, upon her decommissioning in January 2009, the Navy will maintain the USS KITTY HAWK (CV 63), in a retention category until commissioning of USS GERALD R FORD (CVN 78) in September 2015.

COORDINATION PAGE

Office	Name		Date
RDA	Ms Allison Stiller	614-0898	09 Sep 08
N88	CAPT Michael Gnozzio	614-2390	05 Sep 08
N8F	RADM Allen Myers	614-2162	10 Sep 08
NHC	CAPT Michael McDaniel	433-8271	08 Sep 08
OLA	CAPT Stephen Vahsen	693-2919	05 Sep 08
	RADM M. H. MILLER		17 SEP 08
FMBE	CDR Mark Brunner	693-1432	05 Sep 08
	M R Brunner, CDR, USN		18 SEP 08
SAL	CDR Gary Sharp	697-6935	17 Sep 08
FMBE	CAPT Thomas McGovern	692-6735	18 Sep 08

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Service Secretaries to submit a report on Government-owned family housing and the application of the Department of Defense (DoD) definition of "inadequate" housing.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Johnson.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable David R. Obey
Chairman, Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Service Secretaries to submit a report on Government-owned family housing and the application of the Department of Defense (DoD) definition of "inadequate" housing.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Johnson, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

DEC 29

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Service Secretaries to submit a report on Government-owned family housing and the application of the Department of Defense (DoD) definition of "inadequate" housing.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Obey, Johnson, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

29

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Service Secretaries to submit a report on Government-owned family housing and the application of the Department of Defense (DoD) definition of "inadequate" housing.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY

GOVERNMENT-OWNED FAMILY HOUSING

REPORT TO CONGRESS

DECEMBER 31, 2008

Background

House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009 directed the Secretary of the Navy to provide a report to Congress on the application of the Department of Defense (DoD) standard of inadequate military family housing. The report language is provided below:

> *Report on Government-Owned Family Housing.--The Committee understands that the Department of Defense defines an inadequate family housing unit as any unit requiring whole-house repair, improvement, or replacement exceeding a per unit cost of $50,000 adjusted by the area cost factor. The Committee further understands that the Services utilize condition assessments, based on private sector housing industry construction codes and sizing standards, as the basis for determining whether a unit meets the threshold of inadequacy. The Committee is concerned that this minimal definition of inadequacy will result in a remnant of Government-owned housing that does not keep pace with the rising expectations of servicemembers and their families due to the success of privatization. The Committee therefore directs the Secretaries of the Army, Navy and Air Force to provide a report to the Committees on Appropriations of both Houses of Congress on the application of the DoD definition of inadequate housing no later than December 31, 2008. This report shall include at minimum: (1) a detailed description of the condition assessment method utilized, including the specific basis of sizing standards; (2) a breakdown of the total units currently assessed as `adequate' into quintiles according to the per unit cost of whole-house repair, improvement, or replacement; and (3) a breakdown of all government-owned units, both adequate and inadequate, by installation (along with an indication, where applicable, of those units for which a privatization, replacement, or improvement project is currently programmed in the Future Years Defense Program).*

Introduction

In 2005, the Office of the Secretary of Defense (OSD) defined an inadequate family housing unit as:

> *"Any unit requiring whole-house repair, improvement, or replacement as identified by the Services' condition assessments, exceeding a per unit cost of $50,000 adjusted by the area cost factor. Services' condition assessments shall utilize private sector housing industry construction codes and sizing standards as a basis for assessing inventory adequacy."*

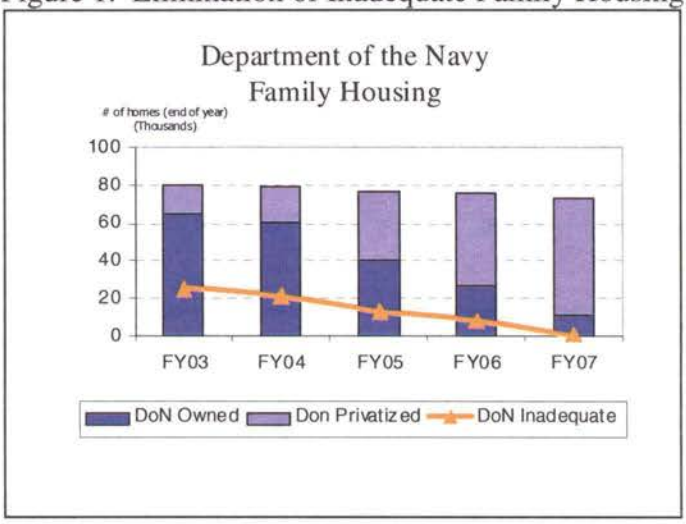
The above definition applies to all Services. OSD notified Congress of this definition in a June 2005 letter to the Congressional defense committees.

Prior to 2005, the Navy and Marine Corps defined an inadequate family housing unit as any unit requiring more than $15,000 in repairs or improvements. (There was no geographic adjustment.) This definition was used in establishing the requirements to meet the OSD goal of eliminating inadequate family housing by FY 2007. The introduction of the OSD definition,

with the higher dollar threshold, did not affect the Navy and Marine Corps requirements or their ability to meet this goal.

The Navy and Marine Corps met the OSD goal by programming the necessary resources and having contracts or agreements in place by the end of FY 2007 to eliminate inadequate family housing. The Department relied principally on the use of military housing privatization authorities to address inadequate family housing in the Continental United States (CONUS) and military construction overseas where, with the exception of U.S. territories and possessions, the privatization authorities do not apply. Figure 1 is a chart depicting how the elimination of inadequate Navy and Marine Corps family housing units was programmed by 2007:

Figure 1. Elimination of Inadequate Family Housing



Although funding was provided and contracts or agreements were in place by the end of FY 2007, the actual work to eliminate the units (through renovations or replacement) will extend beyond 2007. This is driven by the magnitude of the work involved and a desire to minimize displacement of Navy and Marine Corps families as units are taken off line and, therefore, become unavailable for occupancy. The Navy expects that all work will be complete by 2011. The Marine Corps expects that all work will be complete by 2014. The latter period is extended as the Marine Corps plans to retain housing, in the interim, to accommodate increased requirements due its force structure initiatives until sufficient additional housing can be built.

It is important to note that, notwithstanding the definition used to distinguish inadequate from adequate housing, the Navy and Marine Corps intend to ensure the continued habitability and safety of its housing as necessary through accomplishment of needed maintenance and repair projects as requirements emerge and through the programming of improvement or replacement projects as part of an overall recapitalization program. As shown in Table 3 of this report, housing units are programmed for replacement or improvement in the Future Years' Defense Program (FYDP). With the exception of a unit at Marine Barracks Washington DC (for which requirements in excess of $50,000 as adjusted by the OSD area cost factor were identified subsequent to FY 2007), these units are currently considered adequate. Family housing units would be designated inadequate if the needed work was not accomplished within the required timeframe, thus creating a backlog of work.

It is important to note that necessary work will be accomplished to address habitability or safety issues irrespective of the adequacy designation of the unit or whether or not the $50,000 threshold is exceeded.

Finally, in accordance with the House Report 110-775 requirement, the remainder of the report addresses Government-owned homes in the Navy and Marine Corps military family housing inventory. Over 90 percent of the Navy and Marine Corps inventory has been privatized and is not included in this report. However, it is important to note that, with privatization, structures are in place to ensure the sustainment and recapitalization of the homes over the length of the agreements.

Condition Assessment Methodology

Overall

The following is a discussion of the methodologies used by the Navy and Marine Corps to assess the condition of Government-owned family housing units and determine if any should be classified as "inadequate" based on the OSD definition.

The Navy and Marine Corps use a "whole house" and "whole neighborhood" approach for improvement, replacement, and repair of existing family housing units and neighborhoods, to increase the overall quality of entire family housing areas. The goal is to bring the existing housing inventory up to contemporary housing standards (i.e., codes, safety, maintainability, livability, amenities) through repair, improvement, and replacement and to reduce energy consumption.

To the maximum extent possible, projects resulting from condition assessments address the following objectives:

- Extend the useful life of facilities and infrastructure by at least 25 years.
- Designed and constructed to minimize life cycle costs.
- Restore housing units to structural soundness.
- Upgrade building envelopes to current energy performance standards.
- Lessen impact on the environment.
- Include utility repair and replacement, as required.
- Provide street repair and replacement.
- Provide streetscape repair and improvements.
- Provide community amenities.
- Improve heating, air conditioning, and domestic hot water generating efficiencies.

The following are examples of sources and references used in the conduct of condition assessments and the determination of repair, improvement, and construction requirements:

- American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.;
- American Society of Mechanical Engineers;
- Americans with Disabilities Act (ADA) Accessibility Guidelines;

- National Fire Protection Association;
- DoD Unified Facilities Criteria;
- Illuminating Engineering Society (IES) Lighting Handbook;
- International Code Council; and
- Other local codes and regulations in accordance with Status of Forces Agreements or other international agreements.

Sizing Standards

Title 10 of United States Code, Section 2826 (10 USC 2826) requires that the "room patterns and floor areas of military family housing in a particular locality (as designated by the Secretary concerned for purposes of this section) are similar to room patterns and floor areas of similar housing in the private sector in that locality." To ensure compliance with the statute and to provide standards for use in planning and programming projects, the Unified Facilities Criteria (UFC 4-711-01) provides benchmarks for unit sizes. Those benchmarks are shown in Table 1.

Table 1. Family Housing Unit Size Benchmarks

Rank and Number of Bedrooms	Programming Benchmark[3]		Construction Minimum	Construction Maximum
	(GSF)[1,2]	GSM (m^2)	(GSF)[2]	(GSF)[2]
O7 - 4BR	3,330	309	2,600	4,060
O6 - 4BR	2,520	234	2,110	2,920
O4-O5 - 4BR	2,310	215	1,920	2,700
O4-O5 - 3BR	2,020	188	1,740	2,300
E9 & W4/5 - 4BR	2,310	215	1,920	2,700
E9 & W4/5 - 3BR	2,020	188	1,740	2,300
E7/8-W1/3-O3 - 5BR	2,510	233	1,920	3,090
E7/8-W1/3-O3 - 4BR	2,150	200	1,800	2,500
E7/8-W1/3-O3 - 3BR	1,860	173	1,670	2,050
E7/8-W1/3-O3 - Mod-2BR[4]	1,670	155	1,420	1,920
E7/8-W1/3-O3 - 2BR	1,490	138	1,180	1,790
E1-E6 - 5BR	2,300	214	1,920	2,670
E1-E6 - 4BR	1,950	181	1,670	2,220
E1-E6 - 3BR	1,630	151	1,490	1,760
E1-E6 - Mod-2BR[4]	1,480	137	1,330	1,630
E1-E6 - 2BR	1,340	125	1,180	1,500

Notes
1. 10 USC 2826 requires construction project documentation (DD-1391) to specify net square footage being constructed. See Appendix C, Unit Net Area Calculations, for a graphic example of net and gross area calculations.
2. Add up to 27.9 m2 (300 ft2) for harsh climates. Harsh climates are defined as having more than 7,500 Heating Degree-Days (HDD), annually, or 5,500 Cooling Degree-Days (CDD), annually.
3. Gross floor area may be increased by 10% for housing units for an officer holding a special command position, for the commanding officer of a military installation, and for the senior non-commissioned officer of a military installation.
4. Mod-2BR – Modified Two Bedroom unit adds a room with closet and 3/4 bath to two-bedroom unit. The additional room is designed to serve as a den/bedroom. Mod-2BR should be limited to one-story housing unit only.
12

The size standards, by themselves, are not used to determine adequacy. In other words, a housing unit is not deemed inadequate merely because it fails to meet the construction minimum benchmark size standards.

Navy Condition Assessment Methodology

Since 2001, the Navy has used the Condition Assessment Program (CAP) to provide an independent functional assessment of the quality of housing, related infrastructure, and community assets. The CAP provides for an assessment methodology that is standardized across Navy installations. The results are then used to prioritize and validate housing construction and maintenance funding requirements; reconcile inventory databases, and develop and maintain funding plans.

The CAP specifically provided for the following:

- An independent assessment of the quality of housing, related infrastructure, and community assets;
- A standardized assessment methodology across all Navy activities;
- Validation of inventory details contained in centralized databases;
- Establishment of criteria, metrics, and characteristics with respect to the condition of family housing; and
- Validation of recapitalization requirements and backlogs.

The condition assessments involve a series of visits to installations. As part of these visits, the CAP contractor conducts a physical assessment of randomly selected representative samples of every unit type. (A "unit type" is defined as units having common number of bedrooms and bathrooms; age; renovation history and floor plan configuration and square footage.) The inspections include a scoring of life safety, finishes, and major systems. Each inspection element is scored for various attributes such as appearance, functionality, life expectancy, condition, etc. Additionally, an assessment is conducted for each neighborhood/area and support facilities using a similar scoring system as that employed for housing units.

Overall, the CAP assessment breaks each installation into neighborhoods, which are then subdivided into building and unit types. These unit types are then divided into housing systems, which are further divided into 160 components. Each component is scored on a number of attributes, using a scale of one to five. This scale is defined as follows:

- 5 indicates that the component exceeds requirements

- 4 indicates that the component meets the requirements
- 2 and 3 indicate working components that do not meet requirements
- 1 indicates that the component does not function or has exceeded its useful life

These component scores are then rolled up into system scores and then to unit type/building scores. Additionally, scores for critical elements are run through a parametric model that generates costs for renovation, modernization, or construction projects. If the cost to repair or improve exceeds 70% of the replacement cost, then the home is a candidate for replacement. While the CAP model does not generate project documentation, its output is designed to support Navy planners and project managers in developing the scope and cost estimates for contemplated housing projects.

Marine Corps Condition Assessment Methodology

For the Marine Corps, condition assessments are a long range planning tool and provide a proactive, forward-looking assessment of the major repairs and improvements required up to eight years in the future to prevent significant deterioration or failure of major components or systems within the units. This forward-looking assessment is to enable the systematic planning, programming and budgeting required to ensure adequate funding is available in the timeframe necessary to prevent the units from ever becoming inadequate. The condition assessments are used by Marine Corps installations to develop their prioritized Family Housing Major Repair, Improvement and Construction Long-Range Plan which is updated and submitted annually to Headquarters, Marine Corps. The long-range plan submissions are supported by project documentation that provides costs, supporting detail and justification for the requirements identified in the condition assessments. Routine maintenance and repair requirements under $12,000 per unit are not addressed within the long-range plan as repairs of this scope are within the local installation commander's project approval authority and are intended to be addressed within the annual maintenance budget allocation sent to the installation.

The Marine Corps programs the identified prioritized projects based on the required renovation timeframes identified in the project documentation and on the 50-year life-cycle sustainment funding profile generated for a typical family housing dwelling by a commercial cost-estimating model. This model is the MARS Facility Maintenance Cost Forecast System. The MARS system provides increased accuracy and consistency by generating costs from detailed component lists that include roof structures, walls, doors, windows, HVAC components, plumbing fixtures, electrical components, and other specialized items tailored to each facility type. In accordance with DoD Financial Management Regulations, Foreign Source Housing improvement requirements covering a several year period for a single facility are programmed in one year.

Marine Corps' Condition Assessments are based on a "Whole-Neighborhood Revitalization Program" approach. The purpose of this approach is to upgrade existing family housing to a level comparable to new construction standards for energy efficiency, life safety, habitability, durability, and functional requirements while simultaneously improving neighborhood amenities and support facilities. The condition assessments identify the timing of the major repairs or replacement of facility components that are expected to occur periodically throughout the facility life cycle.

In identifying architectural, mechanical and electrical requirements the different building systems and associated subsystems are assessed. These systems include: roofing, foundation and exterior structure, general interior, kitchens, bathrooms, laundries, and electrical/mechanical systems. The condition assessments consist of the following items:

- Review building envelope design for compliance with applicable criteria, substandard construction, and building code violations.
- Review building envelope materials for age, anticipated life expectancy, and condition.
  - Life expectancy of existing facility (60 years per Status of Forces Agreement)
  - Life expectancy of existing piping, coil units and roofing materials (18 – 20 years)
- Review interior materials on their age and remaining life expectancy, as well as performance and overall appearance.
  - Life expectancy of interior furnishings (15 years)
  - Life expectancy of interior finishes (8-10 years)
- Review building interior design issues compared to applicable criteria for compliance, as well as for substandard construction, building code violations and spatial and functional design issues.
- Identify opportunities to reduce energy consumption per Executive Order (EO) 13123, to meet the requirements of the Energy Policy Act of 2005 (EPAct) and to incorporate cost effective energy efficiency and sustainable design strategies.
- Identify improvements required to comply with building antiterrorism standards requirements in accordance with Unified Facilities Criteria (UFC) 4-010-01, "DoD Minimum Antiterrorism Standards for Buildings"
- Review facility for compliance with fire and life safety criteria in accordance with UFC 3-600-01, Fire Protection Engineering for Facilities.

Note: Component life expectancies are adjusted based on type of material and local climatic conditions.

Breakdown of Adequate Family Housing Units

The breakdown of Navy and Marine Corps adequate family housing units, in quintiles according to per unit cost of the backlog of whole-house repairs, improvements, or replacement, is provided in Table 2.

Table 2. Distribution of Units Based on Per Unit Cost of Backlog of Repairs, Improvements, and Replacement

	$0 - $10,000	$10,001 - $20,000	$20,001 - $30,000	$30,001 - $40,000	$40,001 - $50,000	Total
Navy	9,078	36	-	-	-	9,114
Marine Corps	812	-	-	2	1	815
Total	9,890	36	-	2	1	9,929

Notes:

1. Reflects inventory as of September, 2008.
2. Reflects backlog of repairs, improvements, and replacement per unit. Does not reflect future projections of requirements.

3. Excludes housing at BRAC locations or housing that is excess to requirements and planned for demolition or divestiture.
4. Costs adjusted for OSD geographic area cost factor.

Breakdown of Government-Owned Family Housing Units by Installation

Table 3 contains a breakdown of Navy and Marine Corps Government-owned family housing, by installation.

Table 3. Government-Owned Family Housing by Installation

				Units Programmed in Current FYDP			
Installation	Adequate	Inadequate	Total	Privatization	Replacement	Improvement	Total
			Navy				
Annapolis, MD	1	-	1	1	-	-	1
Corpus Christi, TX	2	-	2	-	-	-	-
Kingsville, TX	2	-	2	-	-	-	-
Mechanicsburg, PA	91	-	91	91	-	-	91
Thurmont, MD	32	-	32	32	-	-	32
Ventura, CA	133	-	133	133	-	-	133
Wallops Island, VA	48	-	48	-	-	-	-
Washington, DC	252	-	252	252	-	-	252
West Sound, WA	870	-	870	870	-	-	870
Guam, Guam	1,505	-	1,505	-	-	208	208
Atsugi, Japan	1,033	-	1,033	-	-	284	284
Chinhae, Korea	50	-	50	-	-	-	-
Guantanamo Bay, Cuba	719	-	719	-	146	454	600
Naples, Italy	1	-	1	-	-	-	-
Rota, Spain	781	-	781	-	-	80	80
Sasebo, Japan	661	-	661	-	-	328	328
Sigonella, Italy	8	-	8	-	-	-	-
Yokosuka, Japan	2,925	-	2,925	-	-	-	-
Navy Totals	**9,114**	**-**	**9,114**	**1,379**	**146**	**1,354**	**2,879**
			Marine Corps				
MCLB Barstow, CA	74	-	74	-	-	-	-
Marine Barracks, DC	4	1	5	-	-	4	4
MCRD Parris Island, SC	1	-	1	-	-	1	1
MCAS Iwakuni, JA	736	-	736	-	-	388	388
Marine Corps Totals	**815**	**1**	**816**	**-**	**-**	**393**	**393**
DoN Totals	**9,929**	**1**	**9,930**	**1,379**	**146**	**1,747**	**3,272**

Notes:
1. Reflects FYDP as of FY 2009 President's Budget.
2. Excludes housing at BRAC locations or housing that is excess to requirements and planned for demolition or divestiture.
3. The inadequate unit at Marine Barracks Washington DC is designated as such because required work in excess of $50,000 per units (as adjusted by the OSD area cost factor) was identified subsequent to FY 2007.

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6050

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Obey, Johnson, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable David R. Obey
Chairman, Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6035

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Johnson, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6018

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Johnson.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6050

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Obey, Johnson, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Edwards.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON D.C. 20350-1000

The Honorable David R. Obey
Chairman, Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6035

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Johnson, and Edwards.

Sincerely,

BJP

BJ Penn

Enclosure

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6018

DEC 15 2008

Dear Mr. Chairman:

The Fiscal Year 2008 Military Construction, Veterans Affairs and Related Agencies Appropriations Report 110-775 directed the Secretaries of the Army and Navy to submit a report on the plan for addressing additional family housing requirements due to the "Growing the Force" initiative to increase the number of Army and Marine Corps active duty personnel.

In accordance with this requirement, the Department of the Navy's report is attached.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Byrd, Obey, and Johnson.

Sincerely,

BJ Penn

Enclosure

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

DEPARTMENT OF THE NAVY

IMPACT OF THE "GROWING THE FORCE" INITIATIVE ON UNITED STATES MARINE CORPS MILITARY FAMILY HOUSING REQUIREMENTS

REPORT TO CONGRESS

December 2008

Requirement

House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009 directed the Secretary of the Navy to provide Congress a plan for addressing the additional family housing requirements due to Growing the Force. The report language is provided below:

> *Growing the Force and Family Housing Requirements.— The Growing the Force initiatives to add 92,000 active duty personnel to the Army and Marine Corps will generate significant new requirements for family housing. At the direction of the Committee, both the Army and Marine Corps submitted a stationing plan indicating the units and numbers of personnel to be added to each installation. The Committee directs the Secretaries of the Army and the Navy to submit a plan for addressing the additional family housing requirements due to Growing the Force. This plan shall specify, by each affected installation, the projected additional family members, the projected requirement for privatized or government- owned military family housing, the current housing deficit (if any) at the installation, the projects programmed into the current Future Years Defense Plan to address the requirement, and a target date for meeting the requirement. This plan shall be submitted no later than December 31, 2008.*

Plan for addressing additional family housing requirements:

In accordance with long-standing Department of Defense policy, the Marine Corps plan for addressing the additional family housing requirement due to Growing the Force relies on the communities near the military installations as the primary source of housing. Housing for the additional families associated with the end-strength growth indicated in the Marine Corps Stationing Plan (or for families associated with pre-Growing the Force base loading) has only been programmed in those cases where the Marine Corps has determined, through the conduct of housing market analyses, that the local community cannot support the housing needs of our military members. For all locations, including those with reported deficits, military family housing requirements are sensitive to prevailing market conditions and are subject to change. Prior to programming projects for the provision of additional housing, it is important to establish that the deficits reflect systemic, long-term requirements and are not reflections of short-term market fluctuations. Accordingly, the Marine Corps will continue to update its analyses to monitor the housing markets' ability to accommodate the additional Marine Corps families.

Attachment 1 provides a listing, by installation, of the additional families associated with the Growing the Force initiative, the projected overall requirement for additional privatized or Government-owned military family housing, the projected housing deficit without Growing the Force, the total units programmed in the current Future Years Defense Plan, and the target date for meeting the housing requirement associated with Growing the Force.

Projects programmed in the current Future Years Defense Plan:

Attachment 2 reflects family housing projects programmed in the Future Years Defense Plan (FYDP) (as of the FY 2009 President's Budget) at Marine Corps locations affected by the "Growing the Force" initiative. All projects are programmed as military housing privatization

projects using authorities contained in Subchapter IV of Chapter 169 of title 10, United States Code.

As indicated in the Marine Corps Stationing Plan submitted to Congress in October 2007, the Marine Corps submitted family housing projects in both the FY 2008 Global War on Terrorism (GWOT) and the FY 2008 Baseline Budget in the FY 2008 President's Budget Request to address the additional family housing requirements resulting from the Growing the Force Initiative. Those projects, since authorized, along with other FY08 projects addressing pre-Growing the Force requirements, have been included in the table shown in Attachment 2.

For programmatic reasons and the purposes of this report, the table in Attachment 2 distinguishes between housing constructed in support of Growing the Force and non-Growing the Force requirements. However, all the additional housing, when constructed, will become part of the general housing pool at the installation and will be available to families associated with both existing commands and the newly established commands. The additional families associated with the increased end-strength do not have to wait until the new housing is constructed, but will be eligible to move into existing family housing in accordance with established housing procedures.

ATTACHMENT 1
GROWING THE FORCE IMPACTS BY INSTALLATION

Installation (a)	Additional Families (b)	Projected Overall Requirement for Additional Privatized or Government-owned Military Family Housing (c)	Projected Housing Deficit without Growing the Force (d)	Housing programmed into the current Future Years Defense Plan (e)	Target Date for meeting the Growing the Force Requirement (f)
MCAS Yuma, AZ	40	317	317	0	N/A
MCB Camp Pendleton, CA/ MCAS Camp Pendleton, CA	1,024	1,890	1,203	924	2014
MCAGCC 29 Palms, CA	812	1,298	287	885	2012
MCB Hawaii, HI	125	1,016	970	520	2014
MCAS Cherry Point, NC	529	252	0	252	2014
MCB Camp Lejeune, NC/ MCAS New River, NC	2,272	4,088	2,737	2,196	2014
MCAS Beaufort, SC/ MCRD Parris Island, SC	113	0	0	0	N/A
MCCDC Quantico, VA	45	0	0	0	N/A

Notes:

1. Column (b) reflects the increase in the number of families attributable to the "Growing the Force" initiative.
2. Column (c) reflects the total shortage of housing needed to meet overall family housing requirements. The number includes, but is not limited to, requirements associated with the "Growing the Force" initiative. The requirement reflects a projection out to Fiscal Year (FY) 2011.
3. Column (d) reflects the portion of the projected overall family housing deficit exclusive of requirements associated with the "Growing the Force" initiative.
4. Column (e) reflects the FYDP as of the FY 2009 President's Budget.

ATTACHMENT 2
PROGRAMMED FAMILY HOUSING PROJECTS AT GROWING THE FORCE LOCATIONS

Fiscal Year	Project Number	Title	Location	FHCON Cost ($K)	End-State Units (GTF)	End-State Units (Non-GTF)
2008	PEH0801	Family Housing Privatization	MCB Camp Pendleton, CA	25,175	0	151
2008	PEH0802	Family Housing Privatization	MCB Camp Pendleton, CA	25,000	150	0
2008G	PEH0803	Family Housing Privatization	MCB Camp Pendleton, CA	10,692	66	0
2009	PEH0901	Family Housing Privatization	MCB Camp Pendleton, CA	59,026	265	86
2011	PEH1101	Family Housing Privatization	MCB Camp Pendleton, CA	23,800	135	0
2012	PEH1201	Family Housing Privatization	MCB Camp Pendleton, CA	12,800	71	0
		Sub-Total	**MCB Camp Pendleton, CA**	**156,493**	**687**	**237**
2008	TPH0801	Family Housing Privatization	MCAGCC 29 Palms, CA	50,000	279	0
2008G	TPH0802	Family Housing Privatization	MCAGCC 29 Palms, CA	1,074	6	0
2009	TPH1001	Family Housing Privatization	MCAGCC 29 Palms, CA	49,600	600	0
		Sub-Total	**MCAGCC 29 Palms, CA**	**100,674**	**885**	**0**
Fiscal Year	Project Number	Title	Location	FHCON Cost ($K)	End-State Units (GTF)	End-State Units (Non-GTF)
2009	HIH1201	Family Housing Privatization	MCB Hawaii, HI	60,000	46	474
		Sub-Total	**MCB Hawaii, HI**	**60,000**	**46**	**474**
2011	CPH1101	Family Housing Privatization	MCAS Cherry Point, NC	16,000	102	0
2012	CPH1102	Family Housing Privatization	MCAS Cherry Point, NC	24,100	150	0
		Sub-Total	**MCAS Cherry Point, NC**	**40,100**	**252**	**0**
2008	LEH0801*	Family Housing Privatization	MCB Camp Lejeune, NC	87,951	0	451
2009	LEH0901*	Family Housing Privatization	MCB Camp Lejeune, NC	81,987	0	394
2010	LEH1001*	Family Housing Privatization	MCB Camp Lejeune, NC	84,123	400	0
2011	LEH1101*	Family Housing Privatization	MCB Camp Lejeune, NC	86,700	405	0
2012	LEH1201*	Family Housing Privatization	MCB Camp Lejeune, NC	110,800	546	0
		Sub-Total	**MCB Camp Lejeune, NC**	**451,561**	**1,351**	**845**
		Total FYDP		**808,828**	**3,221**	**1,556**

* Projects include funding for additional DoD Dependent School facilities in support of increased school enrollment generated by the additional family housing.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the sixth quarterly report. The report provides an update on OA progress being made across the Naval Enterprise and provides several examples of activities that the Navy is doing in partnership with industry to enhance innovation and competition.

Because implementation of OA is primarily driven through acquisition activities within individual programs, Enterprise OA progress is linked to acquisition milestones that occur at yearly or greater intervals. Therefore, future quarterly reports will be streamlined to address progress to the OA plan. Annually, I will provide a more comprehensive report which addresses new initiatives or changes to the Enterprise OA plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 1 1 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the sixth quarterly report. The report provides an update on OA progress being made across the Naval Enterprise and provides several examples of activities that the Navy is doing in partnership with industry to enhance innovation and competition.

Because implementation of OA is primarily driven through acquisition activities within individual programs, Enterprise OA progress is linked to acquisition milestones that occur at yearly or greater intervals. Therefore, future quarterly reports will be streamlined to address progress to the OA plan. Annually, I will provide a more comprehensive report which addresses new initiatives or changes to the Enterprise OA plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the sixth quarterly report. The report provides an update on OA progress being made across the Naval Enterprise and provides several examples of activities that the Navy is doing in partnership with industry to enhance innovation and competition.

Because implementation of OA is primarily driven through acquisition activities within individual programs, Enterprise OA progress is linked to acquisition milestones that occur at yearly or greater intervals. Therefore, future quarterly reports will be streamlined to address progress to the OA plan. Annually, I will provide a more comprehensive report which addresses new initiatives or changes to the Enterprise OA plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the Congressional Defense Committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the sixth quarterly report. The report provides an update on OA progress being made across the Naval Enterprise and provides several examples of activities that the Navy is doing in partnership with industry to enhance innovation and competition.

Because implementation of OA is primarily driven through acquisition activities within individual programs, Enterprise OA progress is linked to acquisition milestones that occur at yearly or greater intervals. Therefore, future quarterly reports will be streamlined to address progress to the OA plan. Annually, I will provide a more comprehensive report which addresses new initiatives or changes to the Enterprise OA plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

SIXTH QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems (PEO IWS)
Washington, DC 20376

May 2009

Table of Contents

Executive Summary 1
I. Introduction 3
II. NOA Accomplishments: January 1 through March 31, 2009 6
III. Surface Domain and Aegis Combat System OA 20
IV. Summary 21

Executive Summary

The Sixth Quarterly Report to Congress on Naval Open Architecture (NOA) is submitted as directed by the Senate Armed Services Committee (Report No. 110-77). NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. These practices are intended to significantly increase opportunities for innovation and competition, enable reuse of components, facilitate rapid technology insertion, and reduce maintenance.

This report summarizes NOA progress of the Open Architecture Enterprise Team (OAET) and individual Domains during the period of January through March 2009. It provides an Enterprise perspective while continuing to emphasize the progress being made by the Surface Domain to accomplish more frequent and lower cost combat system upgrades. This report also discusses notable NOA accomplishments of other Domains from January through March 2009.

In the fall of 2008, the Surface Domain released two key documents: a) the Surface Navy Combat Systems Development Strategy and Acquisition Management Plan (AMP), and b) the draft Architecture Description Document (ADD). The AMP provides an executive-level plan for implementation of the Surface Domain's Open Architecture (OA) acquisition strategy, while the ADD begins the process of defining future surface combat systems architecture to a level sufficient to guide the transformation of legacy Surface Domain combat systems into a single product line. In March 2009, the Program Executive Office for Integrated Warfare Systems (PEO IWS) released a second, updated ADD draft (Version 0.9) to PEO IWS's Software, Hardware, Asset Re-use Enterprise (SHARE) repository for government and qualified industry review and comment. The Surface Navy Combat System Development Strategy AMP (Version 5.4) is also available in SHARE.

The contract for the Navy's new Common Processing System was awarded in March 2009. This procurement will provide the hardware that will serve as the foundation for implementation of OA in the Navy's surface combat systems. PEO IWS also has articulated a strategy to reuse functional antisubmarine warfare components across multiple surface classes, including the Littoral Combat Ship, DDG 1000, CG(X), DDG 51 and CG 47.

While Air Domain's focus remains on its keystone OA programs (the E-2C/E-2D and the P-3C/P-8A aircraft), progress is being made on other programs. These include the Navy Unmanned Combat Aerial System and various procurement efforts such as Air Domain Electro-optical/Infrared Sensor Program.

The Command, Control, Communications, Coordination, and Information (C4I) Domain continues to refine its Early Adopter Process to collaboratively develop systems which will utilize specific core services in the immediate Integrated Shipboard Network System Increment 1 Modification 5 or future Consolidated Afloat Network Enterprise System installations. PEO C4I has established a design budget initiative to deliver C4I equipment suites as late as possible during ship construction in order to avoid costly upgrades shortly after ship commissioning.

This is part of a continuous process improvement effort which will be replicated to multiple platforms.

The Submarine Domain continues to exploit OA in sonar, tactical control, weapon control, electronics warfare and imaging systems through Virginia-class new construction and in-service modernization programs. The Domain is managing competitions for combat system subsystems that include OA and new automated testing requirements as part of its continued efforts to deliver new capability with reduced cycle time and cost.

The Space Domain is pursuing implementation of OA principles through reuse, science and technology processes, and education. Mobile User Objective System waveform artifacts have been deposited in the Joint Tactical Radio System Information Repository and ten developers have received copies. PEO Space Systems (SS) is pursuing OA tenets per their S&T Concept of Operation through active participation in the Small Business Innovative Research process.

The Marine Corps Domain remains focused on a cooperative review of program OA policy and implementation status within Marine Corps Systems Command (MCSC) and Program Executive Office Land Systems (PEO LS). MCSC and PEO LS representatives are taking part in the OAET's support of Systems Engineering Technical Review updates. Additional efforts include OA assessment of products in support of the Marine Air Ground Task Force Command and Control Systems and Applications Service-Oriented Environment.

Through the use of appropriate policies and other guidance, as well as business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements more rapidly and efficiently. By shortening the development timeline, appropriately exercising its intellectual property rights, using full and open competition to leverage existing combat system components, and focusing on Fleet-identified needs, the Navy will obtain more capable and effective ships, submarines, aircraft, satellites, Marine Corps units, and C4I capabilities.

Finally, because implementation of OA is primarily driven through acquisition activities within individual programs, Enterprise OA progress is linked to acquisition milestones that occur at yearly or greater intervals. Therefore, future quarterly reports will be streamlined to address progress to the OA plan. Annually, the Department of the Navy will provide a more comprehensive report which addresses new initiatives or changes to the Enterprise OA plan.

I. Introduction

A. Reporting Requirement

As directed in the report of the Senate Armed Services Committee (SASC) on the National Defense Authorization Act for Fiscal Year 2008 (Report No. 110-77), the Navy submits this Sixth Quarterly Report to Congress on Naval Open Architecture (NOA). The scope of this quarterly report includes noteworthy NOA accomplishments of the Open Architecture Enterprise Team (OAET) and individual Domains from January through March 2009.[1] As the Assistant Secretary of Navy (Research, Development and Acquisition) (ASN(RDA)) stated in the letter forwarding the Third Report to Congress (dated August 7, 2008), the Navy will focus on surface combat systems in these reports. The Sixth Report provides an update on the progress being made by the Navy to make incremental improvements to surface combat systems more frequently, with increased effectiveness and at lower cost.

B. Summary of Previous Reports

The First Report to Congress described the history of NOA[2]; the important role that the OAET plays in providing leadership for NOA; the Department of the Navy's (DON's) long-term focus for implementing OA; and the significant challenges that the Department faces in implementing OA. The First Report also contained information regarding the Navy's two main asset repositories: the Program Executive Office (PEO) for Command, Control, Communications, Coordination, and Information (C4I) Net-Centric Enterprise Solutions for Interoperability (NESI) and the PEO for Integrated Warfare Systems (IWS) Software/Hardware Asset Reuse Enterprise (SHARE).

The Second and Third Reports documented the accomplishments of the Naval Enterprise and Domains during the periods January 1 to June 30, 2008 and provided updates on several of the questions contained in SASC Reports 110-77 and 110-335. These accomplishments were mapped to the three NOA strategic goals established in the NOA Strategy published in December 2006. The Fourth and Fifth Reports focused on additional information related to the Surface Domain's NOA efforts, with the Fifth Report also including updates on Domain-level activities from June through December 2008. These updates are mapped to the NOA Strategy that was updated in November 2008.

---

1 The Surface Domain consists of Program Executive Offices (PEOs) representing Carriers, Littoral and Mine Warfare (LMW), Integrated Warfare Systems (IWS), and Ships. The Air Domain consists of PEO Tactical Aircraft (T) representing PEOs for the Unmanned Aviation and Strike Weapons; Air Anti-Submarine Warfare (ASW), Assault and Special Mission Programs, and Program Management (NAVAIR 1.0). The SUBS, C4I, and Space Domains are represented by PEO Submarines, C4I and Space, respectively.

2 NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. The Navy and Marine Corps have adopted OA as one way to reduce the rising cost of Naval warfare systems (categorized as National Security Systems or NSSs) and platforms and to increase the capabilities of Naval systems.

C. Increasing Industry Participation in Open Architecture

Individual Domains are using OA to increase vendor participation in system development and other activities. Greater levels of competition for these activities, if managed correctly, will lead to more cost-effective and innovative solutions to warfighter challenges and directly support the NOA goal of changing the Naval business model. ,

Air Domain

The Air Domain is emphasizing a strategy that embraces both NOA principles and the Modular Open Systems Approach (MOSA) as shown in Figure 1, below. Emphasis is given to both business and technical attributes that promote an open business model. The open business model promotes technical architectures incorporate attributes such as interoperability; modularity; conformance to widely-used, open interface standards; upgradeability based on technology refresh and long-term capabilities roadmaps; vendor independence for the life of the program; joint and allied portability; reconfigurability; maintainability; rapid technology insertion; reusability; and long-term supportability. The number (e.g. B1, B2, T1, T2) associated with each attribute are the recommended order that they should be addressed, starting with the Business attributes.

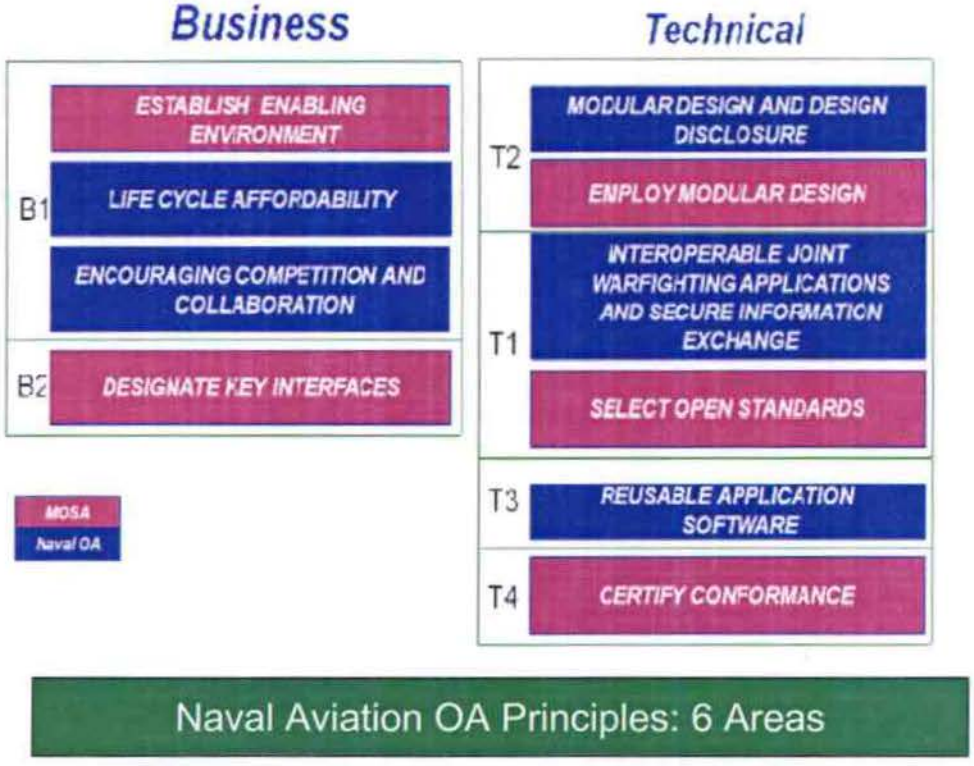


Figure 1. Business and Technical Principles of OA

The principles of OA have been well documented in tools developed by the OAET, the *OA Contract Guidebook,* and assessment tools such as Office of the Secretary of Defense's MOSA

Program Assessment and Ratings Tool now integrated with NOA's OA Assessment Tool (OAAT). The "When-Where-How" to implement OA in a program is the phase that is currently being given the greatest emphasis. Naval Air Systems Command (NAVAIR) recommends that program managers (PMs) and industry partners group the principles with similar objectives into Business and Technical principles as shown in Figure 1.

Figure 2 describes, at a high level, the approach that the Chief of Naval Operations Staff (OPNAV N88), the PEOs/PMs and NAVAIR are taking with respect to OA. The business strategy incorporating the B1 and B2 business principles should be addressed first, then the technical principles of T1-T4. In order to be effective, the business strategy must have upper management buy-in and support. After a business strategy is developed, it is documented in an Open Architecture Management Plan (OAMP); then the technical principles can be worked. The dashed line between "Foster OA management" and "Identify, adopt and prioritize Technical OA principles" denotes a collaborative and iterative process for addressing the technical principles. This model provides a consistently repeatable way to describe the process the Air Domain is taking within its leadership levels. Systems Command (SYSCOM) OA technical authorities, PEOs, PMs, and OPNAV Requirements Officers are working together early in the program life cycle to set the stage for an OA business model ensuring that appropriate OA language is incorporated in requirements and acquisition documentation such as the Acquisition Strategy, Capabilities Development Document, Broad Agency Announcement (BAA), System Requirements Document, System Performance Specification, Statement of Objectives, Statement of Work (SOW), and Contract Data Requirements List (CDRLs).

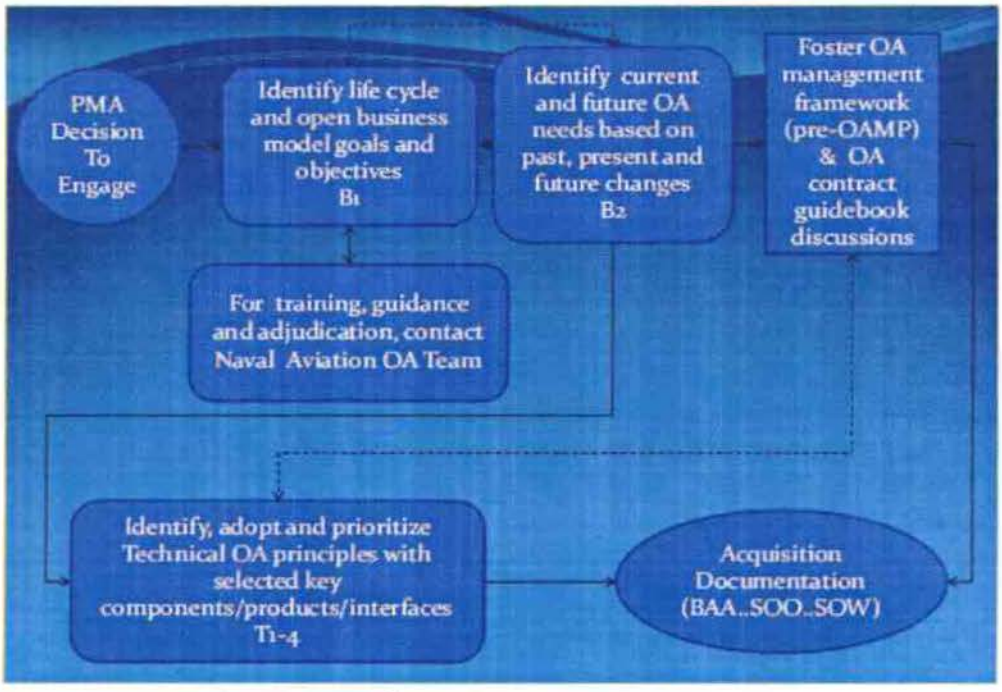


Figure 2. Aviation Domain Process for Employing the Business & Technical Principles of OA

The Air Domain process in Figure 2 is being shared with industry to encourage adoption of an OA business strategy at a sector or company level, as opposed to a separate OA business strategy for each product. Various forums are used for communications venues. These include Industry Days for major Request for Information and Request for Proposals (RFP) announcements; NAVAIR-hosted Industry Collaborative Exchanges with Air Domain prime contractors; and Technical Coordination Meetings with BAA awardees.

C4I Domain

PEO C4I is realizing the long-term OA investment in the Naval Integrated Tactical Environmental System (NITES)-Next Program which first used the PEO C4I NESI Collaboration Site in December 2006 when it established its own Vendor Information project site. Navy software from the legacy NITES program was uploaded to allow potential vendors the opportunity to reuse the software as part of their NITES-Next technical approach. The RFP for NITES-Next was released in July 2008 with a Software Product Specification CDRL specifying that all software product end items be delivered to the NESI Collaboration Site. The contract will be awarded in summer 2009.

This planning process was accomplished by requiring the NESI Collaboration Site to be used by programs to facilitate the sharing of software source code and services, and data exchange between internal and external DoD programs, within legal constraints. The repository includes appropriate computer software product end items (to include components, source code, design details, script files, custom-built tools, revision control metadata and data, make files, instructions, and test artifacts) that have been identified as having "Unlimited Rights" or "Government Purpose Rights." Currently there are 1,473 registered users and 120 hosted projects on the site.

Anti-Submarine Warfare Community of Interest (ASW COI)

To promote cultural change and broaden industry involvement, the ASW COI has been using the National Defense Industrial Association (NDIA) Undersea Warfare Division as a partner in promoting NOA. The ASW COI seeks stakeholder participation and buy-in for OA by leveraging NDIA's semi-annual conferences that attract 500-1,000 attendees from industry, the Fleet, and government acquisition organizations. Multiple plenary and technical session presentations on OA have been supported at every conference for over four years. NDIA has also conducted studies for the government related to adoption of OA and evolution of the Surface Combat Systems objective architecture.

II. NOA Accomplishments: January 1 through March 31, 2009

This report is framed in accordance with the overarching Naval OA Strategy, established in December 2006, and updated in November 2008. The strategy is comprised of three overarching goals that address the business, technical, and cultural aspects of OA

transformation. These goals are supported by efforts performed either across the Naval Enterprise by the OAET or within individual Domains by PEOs, COIs, Programs, or SYSCOMs.

A. Goal 1 – Change Naval Processes and Business Practices

Goal 1 – Change Naval processes and business practices to use open systems in order to rapidly field affordable, interoperable systems. This goal includes addressing governance challenges; creating policy and guidance materials; developing new business models (emulating the successes of the Acoustic-Rapid Commercial-off-the-Shelf Insertion (A-RCI) Program and other examples); incorporating OA principles and practices in programs and acquisition materials including contracts; and encouraging competition and improving interoperability by making information and design artifacts available for reuse by programs.

OAET

- On March 5, 2009, the OA Lead Council, chaired by PEO IWS, held its fourth meeting. This meeting focused on enhancing the coordination between the Acquisition and Program Management Communities and OPNAV by including OA principles in program requirements. This coordination is intended to lead to increased use of common architectures and components across different Naval programs. Both the Mine Warfare (MIW) COI and OPNAV N43 were added as members of the OAET and OA Lead Council.

- PEO IWS, in collaboration with the OAET, continues the process of updating the *OA Contract Guidebook* (last updated on October 25, 2007). The OAET has solicited lessons learned from using the *Guidebook* that can be incorporated into the next version, projected for release later in the third quarter, Fiscal Year 2009. One area of emphasis in the update links research being performed by the Naval Postgraduate School (NPS) and the Surface Domain's SHARE repository to better define the items that the Navy acquires through its contracting activities. The NPS research is extensible and is being used to guide other repository efforts within the Navy, including the PEO C4I NESI Collaborative environment.

Air Domain

- The Navy's Unmanned Combat Aerial System (N-UCAS) Program Office (PMA-268), within Program Executive Office Unmanned Aviation & Strike Weapons (PEO U&W), is demonstrating a persistent, penetrating unmanned low-observable platform which can operate from U.S. aircraft carriers and perform aerial refueling. As a part of this demonstration, PMA-268 is exploring how to implement OA in a "clean sheet" aviation system design in order to maximize cost-effectiveness and minimize fielding time. Key objectives of the N-UCAS OA approach include:

    - Designing for Scalability – Scalability is the key to the commercial industries' ability to reduce intergenerational system costs. The N-UCAS program personnel are working the

underlying business model to achieve true scalability (and cost savings) through three dimensions: software, communications (networks) and hardware. They are addressing cultural change by planning and executing focused demonstrations that show the difference between old business methods and what can be accomplished by implementing scalability with measurable benefits.

- Fully Networked – The N-UCAS is being conceptualized from the ground up as a fully networked platform, with the goal of eliminating all stove piped, legacy communications approaches. PMA-268 estimates through its ship integration experience that every legacy connection can cost 10 times as much as a networked software connection.

- Integrated Applications – In the fully networked concept, all functions operate as services (e.g. service-oriented architecture) operating on redundant networks. N-UCAS has integrated six functions currently performed by legacy systems – navigation, approach and landing, radio communications, situational awareness, air traffic control, and command and control – as software services over a redundant network. In the most recent demonstration held in February 2009, PMA-268 demonstrated a redundant, fail-operational line-of-sight wireless network using a King Air "surrogate" aircraft and the USS HARRY TRUMAN (CVN 75).

- Cost-Effective – Scalable, service-oriented software provides significant cost savings over legacy monolithic software designs. When the N-UCAS program first converted their developmental software from legacy communications systems to a fully internet protocol-networked approach in 2005, they achieved an 80 percent reduction in software costs and were able to develop applications in the internet protocol (IP) environment 12 times faster than before.

- Safety of Flight – A key challenge for scalable application design has been performance in a military wireless environment, especially in the areas of latency, timeliness, integrity, and continuity. These networks are considered "lossy" because they are subject to reduction in signal strength that can lower their reliability. N-UCAS has demonstrated through surrogate testing that robust, repeatable, low latency performance can be achieved with lossy radio-frequency networks, allowing Open Architecture, IP-based services to be used even for Safety of Flight applications.

- As has been previously reported, PEO Air Anti-Submarine Warfare, Assault & Special Mission (PEO A) undertook an extensive study during 2007-2008 to initiate strategic planning of future PEO A Electro-Optical/Infrared (EO/IR) sensor technology procurements.
  - The major findings of this study were that:
    - Significant opportunities exist for commonality in EO/IR sensor market;
    - Commonality can reduce costs across all life-cycle phases; and
    - Movement towards standard hardware and software interfaces and open software architectures is a fundamental first step to enabling commonality in the long term.

- The objectives of the effort to develop an EO/IR Common Interface Standard are to:
  - Develop and implement EO/IR common interface standards;
  - Apply OA concepts;
  - Maintain a competitive environment;
  - Develop defined and disciplined sensor roadmaps aligned with platform and mission area roadmaps;
  - Reduce sensor life cycle costs;
  - Enable more agile response to warfighter needs (shorter cycle time, with more capable technology); and
  - Ultimately reduce the number of disparate EO/IR systems on PEO A platforms.

- The Avionics Systems Engineering Department (AIR 4.5) hosted an EO/IR Sensor-Platform Interface & Engineering Standards Kick-Off meeting on March 25, 2009 and one-on-one industry meetings on March 26, 2009. Industry, US Air Force (USAF), US Army and Navy Commands participated. The near-term milestones are to work on interface studies led by the Society of Automotive Engineers and National Geospatial Intelligence Agency Interoperability Action Team, establish a Government Overview Committee to monitor and provide guidance to the standards adoption/development process, and to identify other Navy and DOD groups that might benefit from this effort. This is an on-going initiative and updates will be provided in subsequent reports.

C4I Domain

- PEO C4I is scheduled to release the RFP for the Navy Global Positioning Network Timing Service in summer 2009. It uses the *OA Contract Guidebook* to support service-oriented architecture (SOA) requirements for interoperability and reuse of services that collect geospatial information for a variety of consumers. As a part of their Government-Furnished Information reuse effort, the program of record (POR) intends to make available software components from the legacy Navigation Sensor System Interface Program to potential bidders for consideration via the PEO C4I NESI software repository. Included in the solicitation are the standard assessment and reuse CDRLs used to measure compliance with openness tenets and to require deposit of any Government-owned Intellectual Property in the NESI software repository for future reuse.

Littoral Mine Warfare (LMW) Domain

- The MIW COI, including the Mine Warfare Program Office (PMS 495), was created and added to the membership of the OAET Lead Council. MIW COI is proactively implementing a FORCEnet roadmap to align MIW applications within a future open architecture. Support for this future architecture will involve data standardization, a services-oriented approach, and technology insertion initiatives to field capability within applicable Navy networks and to expeditionary 'edge' users. The MIW Data Model Working Group within the MIW COI has published a semantics-focused MIW taxonomy

and plans to iteratively publish a logical data model in Fiscal Year 2009. Incorporation of data standards for sensor data, to include the emerging number of new mine-hunting sonars, is expected to allow expanded reuse of sonar data and highly leverage related efforts and technology to support improved MIW capability.

- PEO LMW is currently pursuing several major efforts to implement open architecture principles for MIW. The first initiative involves the migration of the MIW tactical decision aid, Mine Warfare and Environment Decision Library, to a SOA in support of its open architecture vision. By incorporating applicable net-centric technologies, this initiative will facilitate a revolution in knowledge management and automation in support of MIW fleet forces. Additionally, the Network-Centric Sensor Analysis for MIW software suite is being prototyped to provide a common set of software tools, architecture, and sensor data standards for post-mission analysis of all tactical and environmental MIW sensors. This open approach will introduce modularity and allow small businesses to competitively develop and transition new technologies, such as automatic target recognition and data fusion, into a common MIW sensor analysis software application.

- The Mine Counter-Measures (MCM) modernization for the MCM 1-class ships is delivering its first fully modernized combat system on USS SENTRY (MCM 3) in April 2009. The MCM Combat System Modernization consists of the following major components:
  - AN/SSN-2 (V)5 Precise Integrated Navigation System, an open architecture combat systems network with Electronic Charting Display System - Navy capability;
  - Upgrade of the AN/SQQ-32, High Frequency Wide Band Sonar; and
  - Expendable Mine Neutralization System, replacing the AN/SLQ-48 Mine Neutralization System.

- During the January to March 2009 reporting period, PEO LMW prepared a draft performance specification for Unmanned Systems Common Control for the Littoral Combat Ship (LCS). This draft specification is the next step in achieving an OA-based design which can be implemented through spiral upgrades of the current LCS vehicle control baseline. It will be distributed to industry for review and comment in May.

- Other PEO LMW progress during this period includes:

  - Unmanned Maritime Vehicle Program Office (PMS 403)

    - PMS 403 is supporting OA initiatives by ensuring that the upcoming competitive contract for development of the surface mine countermeasures includes contract language and requirements for OA in accordance with the *OA Contract Guidebook*.

  - Counter Radio-Controlled Electronic Improvised Explosive Device Warfare / Explosive Ordnance Disposal Program Office (PMS 408)

- PMS 408 is applying the OA principles to the Joint Counter Radio-Controlled Electronic Improvised Explosive Device (IED) Warfare (JCREW) System of Systems (SoS), (known as "JCREW Spiral 3.3 - System of Systems"), which consists of Mounted, Fixed and Man-Pack Radio-controlled IED Jammers. JCREW is an important part of our force protection posture. JCREW SoS will provide commanders of the Joint Forces, U.S. Marine Corps, U.S. Navy, U.S. Air Force, Special Operations Command, other DoD components, and non-DoD agencies with a Family of Systems (e.g., airborne CREW devices or legacy ground-based CREW devices) capability to counter Radio-controlled Improvised Explosive Devices.
- What separates "JCREW Spiral 3.3 - System of Systems" from the other legacy Systems is OA. PMS 408 combined information from several sources, including the *OA Contract Guidebook* and business models developed by other programs, in order to incorporate OA principles and address OA requirements.
  - JCREW SoS will be more easily upgradeable and executable through incremental development and the use of open architecture and well-defined, common standards.
  - Current JCREW plans envision: 1) two to three year technology refresh updates; 2) a second incremental update four to six years after Initial Operational Capability; and 3) periodic technology insertions in order to maintain common baselines, to account for obsolescence, and to counter the rapidly evolving threat.
  - The JCREW SoS will be employed throughout the future operating environment, supporting U.S. Forces dominance over the electromagnetic spectrum, and will not require new or unique communications systems.

- Mission Module Program Office (PMS 420)

  - PMS 420 is currently conducting an extensive OA review of each of the LCS Mission Packages using the OAAT and onsite visits by representatives from the OAET. The results of these reviews will be used to identify alternatives for including additional OA principles in these development efforts. The report on this review will be completed during the third quarter of Fiscal Year 2009.

- Maritime Surveillance System Program Office (PMS 485)

  - PMS 485 provided OA guidance to the team preparing the SOW for the Integrated Undersea Surveillance System (IUSS) Common Processor (ICP) development follow-on contract expected to be awarded in late Fiscal Year 2009. The ICP is common to SURTASS and Fixed Surveillance Systems and is based on the A-RCI system that the Submarine Community uses. A Technical Directorate review for the proposed SOW including OA clauses, incentives, etc. is being scheduled for the third quarter of Fiscal Year 2009.
  - During the second quarter, Fiscal Year 2009, PMS 485 initiated an Interface Control and Architecture development effort to baseline existing IUSS system interfaces. The goal is to identify the interfaces that can be migrated to industry standards for future system developments.

Submarine Domain

- TEAM SUB is actively addressing the evolution of the PEO Submarines architecture to account for current backfit and Virginia Submarine Warfare Federated Tactical System (SWFTS) variants. TEAM SUB is also looking towards the future with Virginia Flight 4 and Ohio Class Replacement SWFTS variants. PEO Submarines is identifying a list of potential related studies that could be performed by government and/or industry teams. The next step is to prioritize the list of studies for PEO Submarines leadership consideration.

Marine Corps

- In November 2008, the Marine Corps Systems Command (MCSC) restructured the supervision of OA activities to a division under the Deputy Commander for Systems Engineering, Interoperability, Architectures and Technology. Final reorganization of OA management was completed; these responsibilities have been assumed by the Director Marine Air Ground Task Force (MAGTF) & Joint Integration and Certification (M&JIC) Division. Realignment has made this position more visible and cuts across all product groups within MCSC. This shift in governance provides comprehensive reach across the command and provides improved alignment with Systems Engineering Technical Review (SETR) processes and Technical Authority initiatives.

- MCSC continues to use the *OA Contract Guidebook* in preparing its acquisition materials. U. S. Marine Corps (USMC) program teams use a packaged combination of computer applications to prepare and monitor SOW generation and CDRLs. In November 2008, MCSC initiated a comprehensive review of the SOW and CDRL Tracking Tool. A portion of this effort was directed towards incorporating the most current recommended OA language into USMC contracts. The review was completed and MCSC comments submitted in January.

ASW COI

- The ASW COI continues developing an ASW Mission Area governance process to implement OA principles including supporting common software development, reuse and maintenance across the PEOs that are responsible for ASW capability acquisition. Part of this process must include coordination of requirements and funding across multiple OPNAV resource sponsors. This work supports the OAET goal of achieving Enterprise-level software reuse.

    - A key enabler for implementation of cross-domain software reuse is development of mission-focused data strategies. The ASW COI is developing the second release of the ASW COI Data Model with significant industry participation on its ASW Data Management Working Group. The ASW COI is actively working with the Mine Warfare, Maritime Domain Awareness and Measurement and Signature Intelligence COIs as well as the Universal Core and Command and Control Core initiatives to ensure alignment of data strategies and implementation.

- A Tactical Information Processing System proposal that supports re-use of IWS 5 Acquisition Program Baseline-developed software tools was selected by the NAVSEA technical review board for submission to Office of Naval Research (ONR). Additional information supporting the cost avoidance was submitted to ONR in February.

- The IUSS prime contractor and Technical Director have coordinated an analysis of the ICP functional architecture versus PEO IWS Combat Systems ADD, the ASW Architecture, and the Undersea Warfare Decision Support System (USW-DSS) to assess the ability of the ICP to benefit from future software re-use.

B. Goal 2 – Provide Naval OA Systems Engineering Leadership

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs. Included in this goal are collaborative efforts in systems engineering; process standardization; leveraging OA to provide quick wins and proofs-of-concepts that provide new capabilities to the Fleet; and providing performance enhancements to fielded systems and development projects.

OAET

- During the January – March 2009 reporting period, PEO IWS and representatives from the OAET drafted OA content for inclusion in ASN(RDA) Chief Systems Engineer (CHSENG)'s Core Briefing and Probability of Program Success process. These materials are being vetted across each of the Navy's SYCOMS by the ASN(RDA) CHSENG team.

Air Domain

- In June 2008, ASN(RDA) directed that a SETR process be implemented within the DON, designating ASN(RDA) CHSENG as the lead. In response to the ASN(RDA) CHSENG tasking, the common Naval SYSCOM SETR Process is being developed and managed jointly via the System Engineering Stakeholders Group (SESG). The OAET created an OA SETR team, coordinated by Air Domain personnel, to engage in this task. The goal of the OA SETR is to ensure that OA is addressed in the systems engineering review process for every Navy program. During this reporting period, the OA SETR team completed the first spiral of a technical review checklist for OA attributes. This initial spiral was important in building working relationships and defining key concepts in how to apply OA principles within the construct of the SETR Handbook. Key to the success of this team is the involvement of the OA Technical Warrant Holders and appropriate SYSCOM representatives. This involvement will ease the approval process of the OA SETR products through the SETR SESG approval chain.

    - The OA SETR team has established goals, an overall approach and sample OA attributes to be considered during the technical reviews. The approach to measuring OA

attributes in the SETR process is to use current, in-place work packages. As such, work packages will normally be composed of technical development plans and product specifications supporting a particular SETR event. Work packages provide the technical authority with the basis for accomplishing the review and assessment task. A work package includes: the list of the tasks to accomplish, reference processes, knowledge base (including "what good looks like"), representative measures and outcomes, and a guide for tailoring the work package to specific needs. The package may contain lists of detailed questions to ask, keyed to specific OA attributes. Augmented by the entrance and exit criteria, technical warrant holders will have the knowledge and tools to assess the "openness" of a given POR systems development.

- OA is a paradigm shift in how to acquire capability – not a capability in and of itself. Resource Sponsor requirements and Fleet operational requirements establish an overarching OA strategy. Program business, acquisition and contract decisions define and constrain the OA objectives for that program. Through the application of systems engineering principles, the technical attributes of those OA objectives flow from top-level requirements (contained in Joint Capabilities Integration and Development System language: operational architecture, requirements and concept of operation documents) into the program's development management plans, technical requirements and design.

- The evolving OA SETR process will put in place a repeatable process with measures and a review discipline that provide the technical measures of a program's OA implementation through the technical review events that occur during a program's life cycle phases. The OA SETR tasking only focuses on the integration of technical OA criteria into the systems engineering technical reviews. The outcome of this task should allow the OA technical authority to assess and state the degree to which an OA attribute has been expressed in the POR's development plans, system requirements and design specifications.

- The focus of the second spiral of the OA SETR effort is on the development of a process framework, OA attribute applicability and a technical review checklist. An early draft of these key components of a SETR work package will be applied to a Navy program during the third quarter of Fiscal Year 2009 to measure the effectiveness of the framework, attributes and checklist in the technical review.

- The EA-6 Program Office (PMA-234), within PEO Tactical Air Programs (PEO T), held the First Technical Coordination Meeting on January 26 through January 30, 2009, for the Next Generation Jammer (NGJ) Trade Study BAA. OA is a prominent requirement to ensure NGJ is able to evolve with technological advancements and emerging threats.

C4I Domain

- PEO C4I continues to increase disclosure of design artifacts. During this past quarter, PEO C4I submitted 21 assets consisting of 658 artifacts to the NESI Collaboration Web Site.[3] Additionally, 110 new users registered for NESI access during this quarter. The NESI Collaboration Web Site now contains over 323 assets, 7148 artifacts, and has 1,552 registered users.

Surface Domain

- The following SHARE repository and Surface Domain asset / artifact re-use activity occurred during the period from January 1 through March 31, 2009:

    - The "Surface Navy Combat Systems Development Strategy Acquisition Management Plan" (AMP) Version 5.4 was deposited into SHARE - there have been 33 total requests (13 from industry and 20 from government) for the AMP.

    - Nineteen new registration applications were processed (there are now a total of 308 government and industry registrants).

    - A total of 77 assets (66,444 artifacts) are available in SHARE. During this quarter, three new assets were made available: a partial load of Common Network Interface (CNI) Flight 0 v1.1.3/v1.2.3 documentation and software (consisting of two assets comprised of 9,837 artifacts) and Neptune (537 artifacts) were received, audited and made available.
        - CNI Flight 0 is a software package that improves situational awareness for Expeditionary Strike Group Commanders. Documentation and software artifacts were made available to support OA Maintenance-Free Operating Period (MFOP) efforts.
        - Neptune (Version 0.8.3) is a government-developed tool used to view and analyze data recorded by combat system computer programs allowing engineers to verify performance of the system. It is specifically designed to work with the data storing method and object serialization used in Java-based systems.

    - CNI Flight 0+ is expected to be made available for review and insertion into SHARE during the third quarter of Fiscal Year 2009.

    - Remote Off-Hull Maintenance Support Application (Version 1.2) has been submitted to SHARE and is currently in the process of being audited. It was provided to support the OA MFOP efforts.

---

[3] **Artifact**: Product of a system/software development life cycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

- The SHARE repository received requests for four assets during this quarter; two were fulfilled, four are in process and 17 were withdrawn. Since its inception in early 2006, there have been a total of 299 assets requested from SHARE, of which 161 have been fulfilled and 27 are outstanding.

- PEO IWS's OA/MFOP efforts this quarter focused on hardware platform integration and the development of automated procedures for managing component failures. These features will form the basis for operating maintenance free during the system's deployment at sea. The CNI Operational software was obtained from the SHARE repository on January 29, 2009. This software will be deployed in the MFOP system to demonstrate the re-use of tactical capabilities across different hardware platforms. It has been inventoried and is staged for integration on MFOP hardware beginning in April 2009. The Program Design Review was conducted on March 12, 2009. Elements of the review included the hardware and software baseline, integration plans and schedules, the Temporary Ship Alteration for USS IWO JIMA (LHD 7), and the concept of operations for distance support and remote system monitoring of the deployed system. The design review resulted in minor action items that have been accomplished; the project has moved to the system integration phase.

- PEO IWS is examining alternatives for providing the repository functionality that SHARE is currently performing. The Navy's intention is to ensure that the processes and functionality developed under the SHARE repository are transitioned to other repositories and design disclosure mechanisms. The SHARE program is providing invaluable lessons learned that would otherwise not have been discovered and we are examining how we can expand the collaborative and system development capabilities currently made available to acquisition programs through SHARE.

Submarine Domain

- TEAM SUB is actively exploring methodologies to automate artifacts required by the Submarine Warfare Federated Tactical System processes.

- TEAM SUB is looking at adopting Dynamic Object-Oriented Requirements System for requirements management. In addition, a model-driven architecture (MDA) pilot is being explored in which architectural models will be used for the automatic generation of key artifacts, such as the Department of Defense Architecture Framework documentation. It is anticipated that MDA has potential to provide a positive Return on Investment over a system's life cycle.

- PEO Submarines is continuing to assess future middleware technologies and standards for the submarine combat system information architecture. An independent software company has completed its study. A research institute is still in the process of performing the second study.

Space Domain

- PEO SS and the Mobile User Objective System (MUOS) Program Office made design artifacts for the MUOS Common Air Interface Waveform (Version 1.1) available to ten third-party vendors through the Joint Tactical Radio System Information Repository. PEO SS and MUOS Program Office are currently coordinating on data rights for deposit of Version 1.2 and future versions. This action widens the opportunity available to industry to provide MUOS-capable radio terminals to the user community.

Marine Corps

- During the second quarter, Fiscal Year 2009, the Marine Corps received final briefing products from Naval Surface Warfare Center Dahlgren Division (NSWC DD) related to an evaluation of the Combat Operations Center (COC). Work at NSWC DD focused on the ability of the COC architecture to operate as a real-time computing environment. Research results were incorporated into a series of presentations provided to the MAGTF Systems Integration Board (MSIB), MCSC Executive Director, and the Commander MCSC.

- MCSC continues its efforts to integrate OA assessments into programs:

    - In March, MCSC continued partnership efforts with PEO Land Systems (PEO LS) to identify Acquisition Category (ACAT) I and ACAT II programs that will need to conduct updated OA assessments (using the OAAT) as part of hardware and software development life cycles. This is part of PEO LS's efforts to align OAAT with upcoming SETRs.

    - Concurrently, MCSC is conducting a review of all USMC programs of record to determine progress within acquisition stages, ascertain requirements for OA assessment, and examine existing OA products on file. A consolidated report for all PORs will show completed, planned or waived OAAT products according to current prescribed policies. Our current plan aims to complete the review of program's OA status by mid-June. That will be the target date for the next MSIB. At that point, we will be in a position to provide recommended policy for staffing and brief out our current OA position by program and ACAT level.

- The USMC Domain added one additional part-time staff action officer to assist in the OA process. Additionally, MCSC is utilizing naval assets through its association with NSWC DD to enhance the application of OA practices within USMC acquisition programs.

ASW COI

- The ASW COI, as part of its ASW Mission Area governance process, is aligning its OA efforts with Mission Capabilities Architectures and Data Strategies in coordination with the ASN(RDA) CHSENG.

C. Goal 3 – Change Navy and Marine Corps Cultures to Institutionalize OA Principles

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles. The primary mechanisms for achieving cultural change are formal training, communications and outreach.

OAET

- During this reporting period, 83 individuals completed the Defense Acquisition University OA Continuous Learning Module (CLM), raising the total since its inception to 814.

- Ten individuals completed the two-day OA Case Study Workshop developed by the C4I Domain and offered by DAU. A total of 28 acquisition and systems engineering personnel have attended the workshop. Those ten individuals also completed the OA CLM as the pre-requisite for the Workshop.

- The Naval Postgraduate School (NPS) continues to contribute to the advancement of OA at the basic research level and with practical implementation and application of tools and techniques developed through their research.
  - NPS is working to integrate the previously reported SHARE ontology and asset specification project with other efforts to demonstrate the ramifications of implementation of the ontology and specification framework.

  - PEO IWS 1.0 (Integrated Combat Systems) has initiated a pilot project to implement the Real Options Plus Knowledge Value Added (RO-KVA) technique demonstrated in earlier research projects. RO-KVA helps articulate the value stream in selecting and sequencing system components to be competed in support of the Surface Domain objective architecture implementation.

  - A ground-breaking search technique is nearing the prototype stage and will provide more powerful ways to identify common requirements within the universe of enterprise asset repositories to enhance component reuse.

  - Two projects that will provide techniques and a rigorous theoretical basis for reducing the scope and cost of testing while still assuring system reliability are nearing fruition. One is being integrated with PEO IWS's Automated Test/Retest effort and the other is being examined for applicability to the ongoing MFOP Project.

  - Another effort builds on previous research to apply a management model to systems that combine OA and evolutionary acquisition to assist PEO IWS in understanding how program office structures and staffing should be adjusted as the new business models become more widely used.

Other organizations, including the Office of the Secretary of Defense, are becoming interested in these topics and are providing funds for research in related and reinforcing areas. This trend is reflected in the number of papers on OA-related projects being presented at NPS's Acquisition Research Symposium in May 2009. Six panels will present papers related to OA at this May 2009 event, compared to two in 2006.

- In addition to the previously fielded OA CLM that provides an introduction to OA principles, a training module on principles of software reuse was developed. This CLM completed beta testing in February 2009 and was fielded for general use in April 2009. As has been the case with the OA CLM, the OAET expects that the Software Reuse CLM will be used by individuals from industry as well as all the Military Services.

Air Domain

- The NAVAIR OA/Information Assurance Director hosted a USN/USAF MOSA Workshop on February 23-25, 2009 that focused on the business principles of OA. This is part of a series of meetings to better align OA throughout the U.S. military aviation community. Future meetings will include participation of representatives from US Army rotorcraft programs. The NOA OAET methods and products are being leveraged with other Services.

- NAVAIR was a participant in the Technical Cooperation Program that convened in Canberra, Australia on March 4-6, 2009. This meeting was the Australian segment of the Technical Cooperation Program (TTCP) Group for Aerospace Systems Technical Panel on Airborne Mission Systems (TP-7). The TTCP develops shares and integrates emerging defense science and technology to advance the military capabilities of the five member nations. The TP-7 on "Airborne Mission Systems" aims to provide existing and future Airborne Mission Systems with the architectural system concepts and technologies to achieve effective system integration and network connectivity, and to ultimately achieve their maximum warfighting capability. In conjunction with these meetings, a Key Open Sub-Systems (KOSS) Workshop was held with industry and international government participation. Over 300 coalition and industry partners attended. This exchange resulted in international cultural awareness of OA with emphasis on the business principle of identifying key interfaces through the KOSS process.

Marine Corps

- The M&JIC Division of MCSC delivered a series of updates to the MAGTF System MSIB members in response to OA-related inquiries. Feedback from this exchange was used to educate command engineers on the structure and output of the latest OAAT. Additional examination of a Program Office's comments regarding previous OAAT use provided an estimate of cost and schedule for proper OA assessment planning. This estimate will be used as a basis for planning for future OA assessments.

- In March, MCSC initiated development of an OA educational road show briefing for use across multiple groups within MCSC and PEO LS. The briefing aims to boost general

USMC knowledge on the background and approaches to OA within individual projects and programs.

III. Surface Domain and Aegis Combat System OA

This section contains only updates on the objectives/information provided for the Surface Domain in the Fifth Quarterly Report to Congress.

As detailed in the previous Report to Congress, one of the guiding documents for the Surface Domain Combat System OA way ahead is the Draft "Surface Navy Combat Systems Product Line Software Architecture Description Document" (ADD). PEO IWS released a second, updated ADD (Version 0.9) to SHARE in March 2009 for government and industry review; the final document (Version 1.0) is due for release in the third quarter Fiscal Year 2009. Version 5.4 of the Surface Navy Combat System Development Strategy AMP is also available in SHARE.

The contract for the Navy's new Common Processing System (CPS) was competitively awarded in March 2009 to a small business. The award was protested by one of the bidders on March 23, 2009 and a stop work order issued to the winning contractor. NAVSEA is working to adjudicate the protest and lift the order. The CPS equipment procurement provides a processing system that supports the Navy's planned implementation of OA for Navy combat systems. The CPS will be designed around commercially available hardware and software and will provide computer processing and memory, data storage and extraction, and input/output interfaces to support host software applications of Navy combat systems.

Alignment of processes continues. PEO IWS 5 (Surface ASW Systems), as a member of both the ASW COI and the Surface Domain, has articulated a strategy to reuse functional ASW components across multiple surface ship classes, including the LCS, DDG 1000, CG(X), DDG 51 and CG 47. A USW Generic Functional objective architecture, aligned with the Surface Combat Systems objective architecture was incorporated into Version 0.9 of the draft ADD. The USW Generic Functional Architecture is an example of how the functionality maps across a warfighting domain. Over time, the USW Generic Functional Architecture may evolve into a stand-alone document. The ASW COI drafted roadmaps and associated project planning documents for ASW alignment beyond the Surface Domain, including air, submarine and surveillance platforms. For Aegis combat system platforms, ASW functionality from multiple legacy programs will be transitioned to the Open Architecture AN/SQQ-89A(V)15 as part of CG and DDG modernization programs and programmed DDG 79-112 backfits.

Through alignment with the Surface Ship Combat System objective architecture, AN/SQQ-89A(V)15 modular Advanced Capability Build (ACB) capabilities, known as "Functional Segments" will be provided for CG(X), DDG 1000 and LCS, as required.

The AN/UYQ-100 USW-DSS will ultimately provide cross-domain ASW Command and Control for all ASW platforms and shore nodes. It is in the midst of its second ACB development which focuses on the ASW Common Tactical Picture. USW-DSS will begin fleet deliveries in 2009. USW-DSS is also starting development of its third ACB. It is a Consolidated Afloat Network Enterprise System (CANES) early adopter, and has been developed with modular OA-compliant software that it can be readily ported to platforms and shore stations that do not have CANES yet.

Aegis ACB 14 will be the first regular delivery of ASW capability developed as an upgrade to a ship's initial ACB/Technology Insertion (TI) Combat System modernization.

The Navy remains committed to realizing the potential of open systems and open business models as quickly as operational, fiscal and engineering constraints allow. The Navy will continue to update status of the 2009 plan delineated in the Fifth Report to Congress, as required.

IV. Summary

This Sixth Naval OA Report to Congress provides an update of NOA program accomplishments since the Fifth Report was submitted to Congress in February 2009, focusing on the period of January 1 through March 31, 2009. It also provides an update on the Surface Domain and the Aegis Combat System OA implementation program plan.

The Naval Enterprise continues to make progress in the implementation of OA. Through the use of appropriate policies and other guidance, as well as business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements more rapidly and efficiently. By shortening the development timeline, using full and open competition to leverage common warfighting capabilities, and focusing Fleet-identified problems, the Navy will obtain more capable and effective ships, submarines, aircraft, satellites, Marine Corps units, and C4I capabilities.

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVENUE, S.E., M/S 2030
WASHINGTON NAVY YARD, DC 20376-2030

5730
SEA00D1C/112-08

ACTION MEMO

FOR: CHIEF OF NAVAL OPERATIONS

FROM: VADM KEVIN M. McCOY, Commander, Naval Sea Systems Command

SUBJECT: REPORT TO CONGRESS - DISPOSITION OF USS JOHN F. KENNEDY (CV 67)

- CNO, request you concur in subject report [TAB 1] and letters to the Defense Committee Chairmen [TAB 2] prepared in response to the requirement in Conference Report 109-702 accompanying the FY 2007 National Defense Authorization Act (NDAA), Section 1011 [TAB 3], directing the Secretary of the Navy to report on alternatives for the final disposition of USS JOHN F. KENNEDY (JFK).

Response highlights:

- The CNO assigned disposition of ex-JFK is currently TBD. The striking of ex-JFK from the Naval Vessel Register (NVR) will be initiated by OPNAV N8 following the commissioning of USS GEORGE H.W. BUSH (CVN 77) on 10 Jan 09. Due to the significance of ship's association with President Kennedy and the significant public interest in the Navy allowing ex-JFK to be donated for museum/memorial use, the recommendation that ex-JFK be designated for donation transfer under 10 USC 7306 will be included in the recommendation that the ship be struck from the NVR.

- Due to classified structural details common with NIMITZ Class carriers, mitigation work must be accomplished on ex-JFK to prevent disclosure of these details once the ship is donated.

- The report to Congress was due NLT 01 Oct 07. An interim report was signed by SECNAV on 21 Sep 07 that deferred the final report to 01 Oct 08.

- N88 has the lead for a separate report regarding the 10 USC 5062 requirements to maintain 11 aircraft carriers, required in the HASC markup of the FY09 NDAA and due NLT 03 Feb 09, specifically to address the cost and schedule implications of either returning ex-JFK to service or retaining USS KITTY HAWK (CV-63) in service during the period between the scheduled retirement of CVN-65 and the commissioning of CVN-78.

RECOMMENDATION: CNO forward report and letters at TABs 1 and 2 to ASN (RDA) for submission to SECNAV for approval/signature as required by TAB 3 Conference Report language.

COORDINATION: CNO (N885 and N8F1), PEO Carriers, and DASN (Ships).

ATTACHMENTS:
1. Letters to Congressional Defense Committee Chairmen
2. Disposition of USS JOHN F. KENNEDY (CV 67) Report to Congress
3. Excerpt, H.Rpt 109-702 regarding Section 1011 of FY07 NDAA
4. Interim Report to Congress of 21 Sep 07 on JFK disposition

Prepared By: Sharah T. Horton, Congressional Affairs Specialist, (202) 781-1966

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00140
April 30, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

H. R. 3222, the Fiscal Year 2008 Defense Appropriations Act, Senate Report 110-155 directed the Service Surgeons General to provide a report to the congressional defense committees detailing the number of nurses by service assigned to the Doctoral program at the Graduate School of Nursing at the Uniformed Services University of the Health Sciences (USU).

The Navy Nurse Corps presently has one doctoral student enrolled at the Graduate School of Nursing with anticipated degree conferral this year (2008). As PhD training opportunities are considered in the formulation of the Nurse Corps' annual training plan for 2009, we anticipate that USU will be a site to which students are directed.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

A. M. Robinson, Jr.

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00141
April 30, 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

H. R. 3222, the Fiscal Year 2008 Defense Appropriations Act, Senate Report 110-155 directed the Service Surgeons General to provide a report to the congressional defense committees detailing the number of nurses by service assigned to the Doctoral program at the Graduate School of Nursing at the Uniformed Services University of the Health Sciences (USU).

The Navy Nurse Corps presently has one doctoral student enrolled at the Graduate School of Nursing with anticipated degree conferral this year (2008). As PhD training opportunities are considered in the formulation of the Nurse Corps' annual training plan for 2009, we anticipate that USU will be a site to which students are directed.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

A. M. Robinson, Jr.

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00142
April 30, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

H. R. 3222, the Fiscal Year 2008 Defense Appropriations Act, Senate Report 110-155 directed the Service Surgeons General to provide a report to the congressional defense committees detailing the number of nurses by service assigned to the Doctoral program at the Graduate School of Nursing at the Uniformed Services University of the Health Sciences (USU).

The Navy Nurse Corps presently has one doctoral student enrolled at the Graduate School of Nursing with anticipated degree conferral this year (2008). As PhD training opportunities are considered in the formulation of the Nurse Corps' annual training plan for 2009, we anticipate that USU will be a site to which students are directed.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

A. M. Robinson, Jr.

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00143
April 30, 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

H. R. 3222, the Fiscal Year 2008 Defense Appropriations Act, Senate Report 110-155 directed the Service Surgeons General to provide a report to the congressional defense committees detailing the number of nurses by service assigned to the Doctoral program at the Graduate School of Nursing at the Uniformed Services University of the Health Sciences (USU).

The Navy Nurse Corps presently has one doctoral student enrolled at the Graduate School of Nursing with anticipated degree conferral this year (2008). As PhD training opportunities are considered in the formulation of the Nurse Corps' annual training plan for 2009, we anticipate that USU will be a site to which students are directed.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Murtha.

Sincerely,

A. M. Robinson, Jr.

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction, Veterans Affairs
and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport, Florida a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Skelton, Levin and Johnson. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Zack Wamp
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Levin, Johnson, and Edwards. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport, Florida a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Skelton, Johnson, and Edwards. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 28, 2008

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction, Veteran Affairs
and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2008 directs the Secretary of the Navy to provide a report identifying the military construction requirements and an estimated timetable for completion for making Mayport, Florida a nuclear carrier homeport. I am providing the enclosed response to House Report 110-186.

The Department of the Navy is considering a variety of factors, including operational, financial, and environmental, before making a decision regarding homeporting in Mayport. Thirteen alternatives are being evaluated in an environmental impact study, the draft of which was released to the public for review on March 28, 2008. Homeporting a nuclear carrier in Mayport is one of the alternatives under consideration.

A similar letter has been sent to Chairmen Levin, Skelton, and Edwards. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

Report to Congress
On
Carrier Basing

--

Military Construction Requirements and Estimated Timetable For Completion To Make Mayport a Nuclear Carrier-Capable Homeport

Prepared by
U.S. Fleet Forces Command
April 2008

I. Reporting Requirement

House Report 110-186 on the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill 2008 directs the Navy to provide a report to Congress identifying the military construction requirements and an estimated timetable for completion for making Naval Station Mayport a nuclear carrier-capable homeport. This report is due no later than 30 days after release of the draft Environmental Impact Statement (EIS) which occurred 28 March 2008. Specifically, House Report 110-186 stated:

> *Carrier Homeporting.—The Committee understands that it is the Navy's publicly stated policy to maintain two nuclear carrier-capable homeports on the east coast. The Committee further understands that the Navy is in the process of drafting an environmental impact statement (EIS) that includes the evaluation of the necessary infrastructure and dredging required to make Naval Station Mayport the second such homeport in addition to Naval Station Norfolk, and that a draft EIS will be released in early 2008. The Committee directs the Navy to provide a report to the Committee identifying the military construction requirements and an estimated timetable for completion for making Mayport a nuclear carrier-capable homeport no later than 30 days after release of the draft EIS.*

II. Background

In January 2006 the Chief of Naval Operations directed Commander, U.S. Fleet Forces Command to prepare an Environmental Impact Statement (EIS) to review and assess a broad range of alternatives for homeporting additional surface ships at Naval Station Mayport. The EIS will evaluate the potential environmental impacts for each of the ship homeporting alternatives. Homeporting a nuclear-powered aircraft carrier is one of the alternatives being evaluated.

The purpose of the proposed action is to ensure effective support of Fleet operational requirements through efficient use of waterfront and shore side facilities at Naval Station Mayport.

The EIS will evaluate the potential environmental impacts for each of the ship homeporting alternatives that are under consideration:

- Cruiser/Destroyer (CRUDES) homeporting
- Amphibious Assault Ship (LHD) homeporting
- Nuclear-Powered Aircraft Carrier (CVN) capable
- CVN homeporting
- Seven different combinations of the above
- Amphibious Ready Group (ARG) homeporting
- No Action

The EIS timeline is as follows:

- 14 Nov 06: Notice of Intent (NOI) published in the Federal Register
- 5 Dec 06: Public Scoping Meeting held in Jacksonville, FL

- 14 Nov – 29 Dec 06: Public Scoping comment period
- 28 Mar 08: Draft EIS (DEIS) released to public
- 16 Apr 08: Public Hearing in Jacksonville, FL
- Nov 08: Final EIS (FEIS) released to public
- Dec 08: Record of Decision

A preferred alternative has not been identified.

III. Military Construction Requirements and an Estimated Timetable for Completion for Making Mayport a Nuclear Carrier Homeport

The DEIS states that the total of all estimated MILCON cost for alternative four, which is CVN homeporting, is $260M. This total estimate is comprised of the following: CVN maintenance facilities estimated at $177M, dredging at $48M, wharf F repairs at $19M, parking at $11M, and road improvements at $5M.

The $260M cost estimate in the DEIS released on 28 March 2008 was based on MILCON project planning from existing construction models of similar projects, and was not updated prior to publication of the DEIS to take account of more recent cost estimates resulting from Mayport site-specific cost analysis. More detailed cost analysis and siting studies have been initiated and resulted in the updated costs contained in this report. The overall resulting cost estimate in this report of $372-422M will continue to be refined as progress is made towards the Final EIS and subsequent Record of Decision in Dec 08. The Navy is in the process of refining its cost estimates (1391s), with an expected completion date of June 2008.

If an alternative is selected which homeports other classes of ships in addition to the CVN (i.e. alternatives 8, 10, or 12 of the EIS), construction costs will increase.

The estimated timetable for completion for making Mayport a nuclear carrier homeport depends on the desired date of initial operating capability (IOC), and the availability of military construction project authorization and appropriation. For example, in order to make a 2014 IOC date for CVN homeporting at Mayport, several supporting MILCON projects would need to be programmed beginning in the FY 2010 Budget.

The following details the individual MILCON projects required to support this homeporting action. Additional project details are available in the DEIS.

A. Dredging: A dredge project would be required in order to allow unrestricted access for a CVN under all ship loading and tidal conditions. The cost estimate provided in the DEIS was $48M. The current cost estimate supported by most recent cost estimate analysis remains at $48M.

B. Wharf F upgrades: Structural and utility upgrades would be required for Wharf F to serve as the maintenance berth for a CVN undergoing a Planned Incremental Availability (PIA). The cost estimate provided in the DEIS was $19M. The current cost estimate supported by most

recent cost estimate analysis is $30M based on actual detailed inspections and discovery of unforeseen structural degradation.

C. CVN propulsion plant maintenance facilities: These facilities include a Controlled Industrial Facility for inspection, modification, and repair of radiologically controlled equipment and components associated with naval nuclear propulsion plants, Ship Maintenance Facility where non-radiological depot-level maintenance on CVN propulsion plants will be performed, and a Maintenance Support Facility to house the primary administrative and technical staff offices supporting CVN propulsion plant maintenance and central area for receiving, inspecting, shipping, and storing materials.

The estimated cost provided in the DEIS is $177M. This cost does not include the cost of outfitting the maintenance facilities. The current cost estimate supported by the most recent cost estimate analysis is $250-300M. As noted above, the cost estimate used in the DEIS was based on MILCON project planning from the Navy's previous experience with similar MILCON projects at NAS North Island in 1995. The cost estimates in the DEIS did not include assessment of changes in DOD design requirements since 1995, nor site-specific differences between San Diego and Mayport. The more recent cost estimates include the following differences between the projects:

- Revised design requirements to limit/prevent water intrusion due to hurricane-induced storm surge;
- Increases in design wind loading requirements for all buildings;
- Site-specific differences in subsurface conditions requiring deeper pile driving for maintenance facility foundations;
- Site-specific reductions in design seismic loading requirements for all buildings; and
- Revised anti-terrorism standards (UFC4-010-01).

This cost estimate will continue to be refined until further detailed design work of the facility specific to Naval Station Mayport is completed.

D. Road Improvements: The main road serving the water front (Massey Avenue) would be improved to better accommodate traffic flow to and from the CVN propulsion plant maintenance facilities near Wharf F. The cost provided in the DEIS is $5M. The current cost estimate supported by most recent cost estimate analysis is $16M.

E. Parking Improvements: The laydown for the CVN propulsion plant maintenance facilities would displace existing parking. A parking garage would need to be built to replace that existing parking. The estimated cost provided in the DEIS is $11M. The current cost estimate for a parking garage for homeporting a CVN is $28M.

IV. Conclusion

The current total estimated military construction cost to make Mayport a CVN homeport is $372-422M. The estimated timetable to have Mayport ready to homeport a CVN is dependent upon receiving appropriation for all required MILCON projects. The estimated elapsed time between initial receipt of military construction funding and initial CVN homeport operating capability is

approximately 57 months, with the CVN propulsion plant maintenance facility being the project with the longest design/construction period.

The Navy has not yet identified a preferred alternative for the Mayport EIS. The Navy will fully consider operational, financial, and environmental factors before making decisions regarding the homeporting alternatives being evaluated in the EIS.

The Final EIS will contain final cost estimates which will be the result of further data analysis and completion of all project documentation.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 26 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 House Appropriations Committee Report (110-279) directed the Department of Navy to submit a report that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

The Military Sealift Command (MSC) currently has thirty-two ships under charter for periods exceeding six months; seventeen of which are U.S. flagged foreign-built ships. Under current DoD plans, this number will significantly decrease in the next four years as military requirements evolve, existing DoD assets are modified, and new purpose-built ships are constructed in U.S. shipyards. The enclosed report provides detailed information on the current charter contracts, the developing military requirements which will drive future charters, and estimated ship construction costs.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

REPORT TO CONGRESS

ON

CHARTERING OF FOREIGN-BUILT SHIPS

Prepared by:

Military Sealift Command
914 Charles Morris Court, SE
Washington Navy Yard, DC 20398-5540

March 2008

Report to Congress
On Chartering of Foreign-Built Ships

I. Report Requirements

The Fiscal Year 2008 House Appropriations Committee Report 110-279 directs the Secretary of the Navy to submit a report not later than March 31, 2008 that outlines a plan to end the practice of leasing foreign-built ships to supplement the Navy fleet and institute the practice of utilizing only American-built ships within four years.

II. Background

The Navy's Military Sealift Command (MSC) charters vessels from the commercial market to meet the unique military requirements of Department of Defense (DoD) components, including the afloat prepositioning and ocean transportation of military cargo. Chartering allows DoD to respond efficiently in cases where the military requirement is immediate, subject to change, or of uncertain duration.

MSC is prohibited from chartering a vessel for a period of greater than five years, including option years, unless specifically authorized by law (10 USC §2401).[1] Ships that are time chartered for more than six months to meet military missions are U.S.-flagged and crewed by U.S. merchant mariners. MSC currently enters into contracts for firm periods of up to one year with four one-year options when it time charters such vessels.

When a foreign-built ship is used for these charters, the ship is required to be converted to U.S.-flag, and crewed by U.S. citizen mariners prior to the beginning of the charter. Any conversion work needed to bring the foreign-built ship up to U.S. flag standards and any modifications needed to meet contract requirements, by law, must be accomplished in U.S. shipyards (10 USC §2631(b)).

Few commercial ships with high military utility have been constructed in U.S. shipyards in the past 20 years. Consequently, when MSC has a requirement to charter a vessel, nearly all of the offers are for foreign-built ships.

Currently there are 32 vessels under time-charter for periods exceeding six months; seventeen of which are U.S.-flagged foreign-built ships.

[1] Congress recently imposed additional leasing restrictions by amending 10 U.S.C. §2401 to limit a Military Department's authority to enter into a contract for the lease a vessel, or the provision of a vessel through a charter or service contract, for a period greater than two years but less than five years. A Military Department may enter into such a contract only after providing notice of the proposed contract to the congressional defense committees and waiting for 30 days of continuous session of Congress to pass. *See* National Defense Authorization Act for Fiscal Year 2008 § 1011, Pub. L. No. 110-181, 122 Stat. 3 (2008).

III. Current Foreign-Built Ships Under Charter

Since 2002 the number of foreign-built ships under charter to MSC has declined from 22 to 17. The 17 foreign-built chartered ships include two special mission ships, 11 prepositioned ships, and four sealift ships.

The following table provides information on each of the 17 ships (see Enclosure 1 for additional information including detailed plans to meet future requirements):

Foreign-Built Ships Under Charter (Six Months or Greater) To Military Sealift Command

Vessel Name	Vessel Type	Country of Origin^	DOD CUSTOMER / Mission	End Date
SPECIAL MISSION SHIPS				
CORY CHOUEST*	Offshore Supply Vessel	Norway	USN/ Undersea Surveillance	31-Aug-08
HSV 2 SWIFT**	HSV	Australia	USN/ High Speed Vessel	14-Jul-08
PREPOSITIONING SHIPS				
WESTPAC EXPRESS**	HSV	Australia	USMC/ Dry Cargo and PAC Japan and S. Korea	30-Sep-11
CPL LOUIS J. HAUGE JR*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Guam and Saipan	6-Sep-09
PFC WILLIAM B. BAUGH*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Diego Garcia	27-Oct-09
PFC JAMES ANDERSON JR*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Guam and Saipan	25-Mar-10
1ST LT. ALEX BONNYMAN*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Guam and Saipan	25-Sep-10
PVT FRANKLIN J. PHILLIPS*	Multipurpose Container/RoRo	Denmark	USMC/ Prepo Cargo Diego Garcia	11-Sep-10
LTC JOHN U.D. PAGE	Container	S. Korea	USA/ Prepo Cargo Diego Garcia	31-Dec-10
SSG EDWARD A. CARTER JR.	Container	S. Korea	USA/ Prepo Cargo Diego Garcia	30-Jun-11
CAPTAIN S.L. BENNETT	Container	S. Korea	USAF/ Prepo Cargo Diego Garcia	20-Nov-12
A1C WM H. PITSENBARGER	Container	France	USAF/ Prepo Cargo Diego Garcia	10-Mar-12
MAJ BERNARD F FISHER	Container	Denmark	USAF/ Prepo Cargo Saipan	15-Sep-09
SEALIFT SHIPS				
BAFFIN STRAIT	Multi-Purpose Container	China	USN/ Diego Garcia Dry Cargo Shuttle	30-Sep-09
AMERICAN TERN	Multi-Purpose Container	Germany	NSF & USAF / Dry Cargo for Antarctica and Greenland	30-Sep-10
VIRGINIAN	Heavy Lift Container	Germany	JOINT MUNITIONS CMD/ Dry Cargo Operations	15-Oct-11
TRANSPACIFIC	Tanker	Turkey	DESC/ Far East Petroleum Shuttle	22-Oct-11

No Continued Chartering Requirement Continued Chartering Requirement TBD

* Charter specifically authorized by Congress
** Bridge charters planned to provide interim capability until a Navy-funded U.S.-built JHSV is delivered (First delivery planned for mid-FY12)
^ All ships are U.S.-flagged. Work necessary to meet U.S.-Flag standards was performed in U.S. shipyards

IV. Future Requirements

Special Mission Ships:

In Fiscal Year 2008, the CORY CHOUEST, an ocean surveillance vessel chartered as a Surveillance Towed Array Sensor System (SURTASS) and Low Frequency Array (LFA) platform, will be redelivered to her owner. Navy will retain the surveillance capability through use of a modified government-owned USNS vessel.

Prepositioning Ships:

Upon expiration of its contract in Fiscal Year 2008, the requirement for a High Speed Vessel (HSV) currently being met by HSV 2 SWIFT will transfer from the Special Mission Ship Program to the Prepositioning Program. MSC has issued a Request for Proposals (RFP) for a follow-on contract that will provide an interim capability until new U.S.-built Joint High Speed Vessels (JHSVs) are delivered. The Fiscal Year 2009 President's Budget Request includes Navy funding for the procurement of one JHSV in each of Fiscal Years 2009-2013, and Army funding for one JHSV in each of Fiscal Years 2008-2012. These new ships will replace capability provided by the follow-on HSV contract and may serve as a future replacement for the WESTPAC EXPRESS following delivery of the second vessel in Fiscal Year 2013.

Navy plans to further reduce the number of foreign-built vessels under charter in Fiscal Year 2009 and 2010, by eliminating the five Maersk (foreign-built) vessels that are part of the USMC Maritime Prepositioning Ship (MPS) program. The President's Budget Request for Fiscal Year 2009 includes funding to terminate the capital leases on three Maersk ships. Capabilities provided through the Maersk charters will be replaced by utilization of three government-owned U.S.-built Large Medium-Speed Roll-on/Roll-off (LMSR) ships.

The CARTER and the PAGE are under contract through Fiscal Year 2011 to satisfy U.S. Army prepositioned ammunition requirements. The Army anticipates a continuing requirement for vessels chartered to meet prepositioned containerized ammunition requirements, but that requirement has yet to be fully defined and validated.

Three of the foreign-built vessels in the Prepositioning Program are chartered to meet U.S. Air Force (USAF) prepositioned containerized ammunition requirements. USAF is currently reevaluating their future requirements and is expected to reduce the number of vessels required to be prepositioned.

Sealift Ships:

The VIRGINIAN was chartered to provide additional sealift of ammunition to U.S. forces in Operation Iraqi Freedom and Operation Enduring Freedom. The Joint Munitions Command does not anticipate a requirement beyond the expiration of the current contract in Fiscal Year 2011.

Military resource sponsors are currently evaluating the continued requirement for the BAFFIN STRAIT a small resupply shuttle serving Diego Garcia. Several options are under consideration, including replacing a chartered vessel with regularly scheduled liner service.

Future requirements are anticipated for the ice-strengthened containership AMERICAN TERN and the TRANSPACIFIC, a small tanker currently operating in the Far East.

V. Options to Meet Future Requirements

Time Charters of Existing U.S.-Built Vessels:

Due to scarcity in the marketplace, MSC has not recently had a new construction U.S.-built containership under long-term charter. There are only four containerships built in the U.S. in the last 10 years.[2] These ships were specifically built for the domestic market and are fully employed and unavailable for charter. Looking at the industry as a whole, not a single containership is under construction in the United States at this time.[3]

There is the potential for greater availability in the commercial tanker market. The current Jones Act tanker fleet consists of 55 vessels.[4] Nineteen of these vessels are not double hulled and will be phased out over the next ten years as a result of the Oil Pollution Act of 1990 (OPA 90) regulations. Given the number of vessels that will need to be replaced in the next ten years, the likelihood of new U.S.-built tankers being available for charter is higher than that of U.S.- built dry cargo ships.

Build and Charter of U.S.-built Ships:

Assessing the cost of a five-year build and charter program for a given class of ships is difficult because of the range of legal and regulatory barriers that currently exist. Among these restrictions are Office of Management and Budget scoring rules on leasing, Title 10 restrictions on charters, and government restrictions on multi-year funding.

As mentioned above, MSC receives and obligates customer funding annually. Beyond the current fiscal year, funding is subject to the availability of future appropriations to customer accounts.

A recent market review conducted by MSC revealed extremely limited interest in construction of purpose-built vessels using charters of five-years or less, particularly in the containership market. Because there is little demand for U.S.-built container ships in the commercial market, owners of such ships would be forced to amortize the entire additional

---

[2] Containerships Built in U.S. Shipyards. ShipbuildingHistsory.com. February 25, 2008 < http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.
[3] Current U.S. Shipbuilding Contracts. ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/today/contracts.htm>.
[4] U.S. Maritime Administration. March 17, 2008 <http://marad.dot.gov/MARAD_statistics/2007%20STATISTICS/us-flag%202006.xls>

cost of U.S. construction over the term of the DoD charter. This would result in significantly increased charter rates for DoD during the contract period.

Construction of a new purpose-built containership to meet military requirements is estimated to cost approximately $250M. Estimates are based on the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard, and adjusted to reflect the additional costs of military modifications.[5]

Aker Philadelphia Shipyard constructed the last U.S. containerships. Of note, in its 2006 annual report, the Company states that it will in the future focus solely on the construction of product carriers.[6] News reports indicate that this will keep Aker's order books full until 2012, delaying any further new construction starts for at least four years.[7] There are other U.S. Shipyards which could be considered for the construction of container ships. Only one of the first-tier shipyards (GD/NASSCO) includes a large portfolio of commercial construction. As previously stated however, the business case for these U.S. shipyards to build containerships in order to charter them for periods of five years or less, would not likely be compelling.

In contrast, there is a viable commercial market for new U.S.-built tankers such that tanker owners can anticipate commercial demand for their tankers after the end of the DoD charter period. As a result, owners have proven willing to enter into a one-year firm agreement with options to charter new U.S.-built product tankers to MSC, and in July 2007, MSC awarded a contract to USS Product Carriers LLC for the time charter of two new-build, U.S.-flagged, tankers. Total value of the contract if all options are exercised is $211.1 million. The tankers are being constructed at National Steel and Shipbuilding Company in San Diego, and will replace the current government-owned T-5 tankers which were constructed in a U.S. shipyard in the mid-1980s and will be phased out of their current service in 2010. The new tankers will deliver in 2010 and 2011.

Construction of Government-Owned U.S.-Built Vessels:

In certain cases where the military has identified a long-term firm requirement, the Navy, upon authorization by Congress, has established and funded new ship construction programs. New construction programs can take up to five years for delivery of the first vessel - two years for preliminary/contract design; one year for detail design; and two-plus years for construction.

Ship construction programs currently underway include the T-AKE Dry Cargo/Ammunition Ship Acquisition Program that will replace the aging fleet of cargo and ammunition ships in the Navy's Combat Logistics Force, and the JHSV Acquisition Program, that will provide high-speed intra-theater sealift mobility. The President's Fiscal

[5] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.
[6] Aker American Shipping. "Fourth Container Ship Successfully Delivered to Matson." *Aker American Shipping – 2nd Quarter Results 2006.* February 25, 2008 <http://www.akership.com/_upl/files/akasa0608112q06.pdf>.
[7] Aker American Shipping. "First Product Tanker Delivered from Aker Philadelphia Shipyard." February 25, 2008 < http://www.akership.com/text.cfm?Id=3-14-40-94>.

Year 2009 Budget request includes $962.4 million for the procurement of two T-AKEs, and $174.8 million for the procurement of one JHSV.

VI. Conclusion

Current DoD plans call for further decreases in the number of foreign-built ships under charter in future years. Absent emergent requirements, the total number of chartered foreign-built ships will decline over 50 percent between 2004 and 2012. Because of shifting requirements and modifications to existing DoD assets, a substantial portion of this decrease will come without requiring the construction of new vessels.

Construction of U.S.-built vessels to replace foreign-built ships under charter would require a firm long-term commitment from DoD customers. As evidenced in the Afloat Prepositioning program, evolving military requirements often necessitate changes in the size and type of vessel used for prepositioning. Therefore, there is not a compelling business case for the government or the private sector to invest in the construction of new vessels that have little commercial utility when the new vessel might not be the most appropriate platform for the mission within five to ten years of delivery.

A determination to replace the remaining U.S.-flag foreign-built vessels with new U.S.-built ships would come at a high price – through costly new ship construction and the costs associated with maintaining these ships over their service life. DoD anticipates a continued need for time chartered vessels in order to provide cost-effective flexibility in meeting those DoD requirements which do not warrant long-term commitments.

ENCLOSURE 1:

Inventory of Foreign-Built Vessels Under Contract

Ship Information

Ship Name: CORY CHOUEST

Ship Type: Ocean Surveillance Vessel

Owner/Country: Alpha Marine Services, USA

Year Ship Built: 1974

Country of Origin: Norway

Builder: Ulstein Hatlo

Documentation Country: USA

Conversion Shipyard: Larose, LA

DOD Customer: Navy Undersea Surveillance Command

Mission: Platform for Surveillance Towed Array Sensor System (SURTASS) and Low Frequency Array (LFA)

Contract Information:

Contract Number: N0003304C2000

Commencement of Contract: OCT 2003

Option Periods: one-year firm period, three one-year options and one 11-month option

Redelivery Date: 31 AUG 2008

Total Contract Costs: $52M

Future Plans:

The CORY CHOUEST is an Ocean Surveillance Ship in MSCs Special Mission Ships Program. While ocean surveillance remains a continuing requirement, the Navy does not intend to enter into a follow-on charter upon the expiration of the current contract. A government-owned, contract-operated vessel which has been specifically modified to meet the military mission will replace the CORY CHOUEST.

Ship Information

Ship Name: HSV 2 SWIFT

Ship Type: High Speed Vessel (HSV)

Owner/Country: Bollinger/Incat, USA

Year Ship Built: 2003

Country of Origin: Australia

Builder: Incat

Documentation Country: USA

Conversion Shipyard: NA

DOD Customer: U.S. Fleet Forces Command

Mission: Support Navy experimentation and real world operations

Contract Information:

Contract Number: N0003303C2006

Commencement of Contract: 15 AUG 2003

Option Periods: one-year firm period, three one-year options and one 11-month option

Redelivery Date: 14 JUL 2008

Total Contract Costs: $70M

Future Plans:

U.S. Fleet Forces Command has determined that there is a continued requirement for a High Speed Vessel (HSV) to support the Global War on Terrorism and emerging operational concepts including Seabasing and Global Fleet Station.

MSC issued an RFP for a time charter vessel to replace the HSV 2 SWIFT on 17 JAN 2008. This charter will be awarded under a full and open competition and is expected to be a one-year firm contract with options totaling 59 months if all options are exercised. Beginning in Fiscal Year 2009, the Navy plans to procure a total of five Joint High Speed Vessels (JHSV) at a rate of one ship per year. The new JHSVs are expected to provide the necessary capability to meet future requirements.

Ship Information

Ship Name: WESTPAC EXPRESS

Ship Type: High Speed Vessel (HSV)

Owner/Country: Austal Hull 130 Chartering LLC, USA

Year Ship Built: 2000

Country of Origin: Australia

Builder: Austal Ships

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: USMC

Mission: Movement of PAX and Cargo in Japan and South Korea area

Contract Information:

Contract Number: N0003306C3308

Commencement of Contract: OCT 2005

Option Periods: seven-month firm period and four one-year options

Redelivery Date: 30 SEPT 2011

Total Contract Costs: $60.5M

Future Plans:

USMC anticipates a continuing requirement for a High-Speed Vessel (HSV) in the MSC Prepositioning Program. In future years the capability may be filled with a government-owned U.S.-built Joint High Speed Vessel (JHSV). A bridge contract will be necessary to meet the requirement until a determination is made and future JHSVs joint the fleet.

The Navy plans to procure a total of five JHSVs at a rate of one ship per year, beginning in Fiscal Year 2009. These new vessels are expected to provide the necessary capability to meet future requirements.

Ship Information

Ship Name: CPL LOUIS J. HAUGE JR.

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1979

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Baltimore, MD

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1007

Commencement of Contract: SEPT 1984

Option Periods: five year firm period with four five-year options

Redelivery Date: 06 SEPT 2009

Total Contract Costs: $524.1M

Future Plans:

The CPL LOUIS J. HAUGE JR. is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: PFC WILLIAM B. BAUGH

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1979

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Beaumont, TX

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1009

Commencement of Contract: OCT 1984

Option Periods: five-year firm period with four five-year options

Redelivery Date: 27 OCT 2009

Total Contract Costs: $528.3 M

Future Plans:

The PFC WILLIAM B. BAUGH is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: PFC JAMES ANDERSON JR.

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1979

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Baltimore, MD

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1011

Commencement of Contract: MAR 1984

Option Periods: five-year firm period with four five-year options

Redelivery Date: 25 MAR 2010

Total Contract Costs: $536.7M

Future Plans:

The PFC JAMES ANDERSON JR. is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: 1ST LT ALEX BONNYMAN

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1980

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Beaumont, TX

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1013

Commencement of Contract: SEPT 1985

Option Periods: five-year firm period with four five-year options

Redelivery Date: 25 SEPT 2010

Total Contract Costs: $549.3M

Future Plans:

The 1ST LT ALEX BONNYMAN is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: PVT FRANKLIN J. PHILLIPS

Ship Type: Roll-On Roll-Off (RORO) containership

Capacity: 122,000 sq. ft. of RORO and 380 TEU

Owner/Country: Wilmington Trust Company, USA

Year Ship Built: 1980

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Baltimore, MD

DOD Customer: U.S. Marine Corps

Mission: Preposition RORO Cargo and Containerized Ammunition and Supplies

Contract Information:

Contract Number: N0003382C1015

Commencement of Contract: SEPT 1985

Option Periods: five-year firm period with four five-year options

Redelivery Date: 11 SEPT 2010

Total Contract Costs: $549.3M

Future Plans:

The PVT FRANKLIN J. PHILLIPS is part of the Maritime Prepositioning Force. While prepositioning remains a continuing requirement, the USMC intends to reduce the number of leased vessels used to meet this requirement. The USMC will replace leased vessels with government-owned Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which are better suited to accommodate the growth in USMC equipment size over the last 20 years.

Ship Information

Ship Name: LTC JOHN U.D. PAGE

Ship Type: Containership

Capacity: 2,600 TEU

Owner/Country: Maersk Line LTD, USA

Year Ship Built: 1984

Country of Origin: South Korea

Builder: Daewoo

Documentation Country: USA

Conversion Shipyard: Norfolk, VA

DOD Customer: U.S. Army

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N0003306C3305

Commencement of Contract: APRIL 2006

Option Periods: seven-month firm period and four one-year options

Redelivery Date: 30 SEPT 2010

Total Contract Costs: $53.7M

Future Plans:

The LTC JOHN U.D. PAGE is a munitions carrier in the Army Prepositioned Stocks-3 (APS-3). The Army anticipates a continued requirement for prepositioned ammunition.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the Army. If a yard were available to construct a purpose-built vessel for the Army requirement, the total cost is estimated to be $250M, using the

2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[8] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[9]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10.9M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the Army requirement during the ship construction period.

[8] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[9] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: SSG EDWARD A. CARTER JR.

Ship Type: Containership

Capacity: 2,600 TEU

Owner/Country: Maersk Line LTD, USA

Year Ship Built: 1985

Country of Origin: South Korea

Builder: Samsung

Documentation Country: USA

Conversion Shipyard: Norfolk, VA

DOD Customer: U.S. Army

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N00033-06-C-3306

Commencement of Contract: AUGUST 2006

Option Periods: three-month firm period and four one-year options

Redelivery Date: 30 JUNE 2011

Total Contract Costs: $49.8M

Future Plans:

The SSG EDWARD A. CARTER JR. is a munitions carrier in the Army Prepositioned Stocks-3 (APS-3). The Army anticipates a continued requirement for prepositioned ammunition.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the Army. To construct a purpose-built vessel for the Army requirement, the total cost is estimated to be about $250M. Cost estimates are derived

using the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[10] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[11]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10.9M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the Army requirement during the ship construction period.

[10] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[11] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: CPT STEVEN L. BENNETT

Ship Type: Containership

Capacity: 1,900 TEU

Owner/Country: Sealift Inc., USA

Year Ship Built: 1984

Country of Origin: South Korea

Builder: Samsung

Documentation Country: USA

Conversion Shipyard: Mobile, AL

DOD Customer: USAF

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N0003307C3000

Commencement of Contract: JAN 2008

Option Periods: nine-month firm period, four one-year options and one two-month option

Redelivery Date: 01 DEC 2012

Total Contract Costs: $48.9M

Future Plans:

The CPT STEVEN L. BENNETT is a munitions carrier in the USAF prepositioned fleet. USAF anticipates a continued requirement for this type of vessel and is currently reevaluating their future requirements in order to properly size the USAF prepositioned fleet.

A new ship constructed in the United States to meet this mission would require a firm, long-term requirement from the USAF. Recent reductions in the number of chartered vessels needed to carry a reduced volume of prepositioned ammunition demonstrates the difficulties faced in establishing a firm requirements.

To construct a purpose-built vessel for the USAF requirement, the total cost is estimated to be about $225M. Cost estimates are derived using the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[12] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[13]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the USAF requirement during the ship construction period.

[12] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[13] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: A1C WM H. PITSENBARGER

Ship Type: Containership

Capacity: 1,670 TEU

Owner/Country: Red River Holdings, USA

Year Ship Built: 1983

Country of Origin: France

Builder: Atlantique

Documentation Country: USA

Conversion Shipyard: Charleston, SC

DOD Customer: USAF

Mission: Preposition Containerized Ammunition

Contract Information:

Contract Number: N0003306C3301

Commencement of Contract: APRIL 2007

Option Periods: six-month firm period, four one-year options and one five-month option

Redelivery Date: 10 MARCH 2012

Total Contract Costs: $64.9M

Future Plans:

The A1C WM H. PITSENBARGER is a munitions carrier in the USAF prepositioned fleet. USAF does not anticipate a continuing requirement beyond the December 2011 redelivery date.

Ship Information

Ship Name: MAJ BERNARD F FISHER

Ship Type: Containership

Capacity: 2100 TEU

Owner/Country: Sealift Inc., USA

Year Ship Built: 1985

Country of Origin: Denmark

Builder: Odense Steel Shipyard LTD

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: USAF

Mission: Prepositioned Containerized Ammunition

Contract Information:

Contract Number: N0003304C3302

Commencement of Contract: OCT 2004

Option Periods: One-year firm period, three one-year options and one 11-month option

Redelivery Date: 15 SEPT 2009

Total Contract Costs: $47.3M

Future Plans:

The MAJ BERNARD F FISHER is a munitions carrier in the USAF prepositioned fleet. USAF anticipates a continued requirement for this type of vessel and is currently reevaluating their future requirements in order to properly size the USAF prepositioned fleet.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from USAF. Recent reductions in the number of chartered vessels

needed to carry a reduced volume of prepositioned ammunition demonstrates the difficulties faced in establishing a firm requirements

To construct a purpose-built vessel for the USAF requirement, the total cost is estimated to be about $225M. Cost estimates are derived using the 2006 publically-released cost for containerships built in the Aker Philadelphia Shipyard.[14] The base price of $145M is adjusted to reflect additional costs related to modifications required to adapt the commercial design to military specifications, increased material (e.g., steel) costs, and inflation. Per Bureau of Labor Statistics data, costs of new construction in the US shipbuilding industry (material and labor) have increased by approximately 25 percent during the 2003-2006 period.[15]

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $10M per year, based upon recent experience with operating government-owned contractor-operated vessels.

Following customer validation of a firm long-term requirement, the RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the USAF requirement during the ship construction period.

[14] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

[15] U.S. Bureau of Labor Statistics. Producer Price Index Industry Data: Shipbuilding and Repairing – Non-military self-propelled ships, new construction. February 29, 2008 <http://data.bls.gov/PDQ/servlet/SurveyOutputServlet;jsessionid=f0302c1671ea$3F$1Fxe>.

Ship Information

Ship Name: BAFFIN STRAIT

Ship Type: Containership

Capacity: 300 TEU

Owner/Country: TransAtlantic Lines Inc, USA

Year Ship Built: 1997

Country of Origin: China

Builder: Wuhu Shipyard

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: Navy Operational Logistics Support Command

Mission: Resupply shuttle ship for Diego Garcia

Contract Information:

Contract Number: N0003305C5500

Commencement of Contract: 11 DEC 2004

Option Periods: nine-month firm period and four one-year options

Redelivery Date: 30 SEPT 2009

Total Contract Costs: $18.8 M

Future Plans:

The BAFFIN STRAIT is a containership in the Sealift Program that is chartered to support Navy Operational Logistics Support Command. The future of this chartering requirement is uncertain. Navy Operational Logistics Support Command is currently reviewing the requirement and considering other options for meeting this mission, including replacement of the charter vessel with a regularly scheduled liner service.

Ship Information

Ship Name: AMERICAN TERN

Ship Type: Containership (ice-strengthened)

Capacity: 1,100 TEU

Owner/Country: APL America, USA

Year Ship Built: 1990

Country of Origin: Germany

Builder: VEB Schiffswert Neptun

Documentation Country: USA

Conversion Shipyard: Unknown, Reflagged prior to MSC charter

DOD Customer: USAF and National Science Foundation (NSF)

Mission: Resupply of Thule Air Force Base, Greenland and McMurdo Base

Contract Information:

Contract Number: N0003305C5546

Commencement of Contract: 01 DEC 2005

Option Periods: 10-month firm period and four one-year options

Redelivery Date: 30 SEPT 2010

Total Contract Costs: $52.9 M

Future Plans:

The AMERICAN TERN is the only ice-strengthened container ship in the MSC Sealift Program. The USAF and NSF anticipate a continuing requirement for a vessel to resupply government facilities in Antarctica and Greenland.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the resources sponsors. To construct a purpose-built vessel for this requirement, the cost is estimated to be $100 M, using the 2006 publically-released

cost for containerships built in the Aker Philadelphia Shipyard.[16] Estimates include a 15 percent increase for ice strengthening, plus a $2M adjustment for cranes and inflation. The cost was then adjusted to reflect the relative ship size.

In terms of the cost to operate the container vessel, the commercial costs are estimated to be $6M per year, based upon recent experience with operating government-owned contractor-operated vessels.

The RFP to award process takes approximately one year and construction of the vessel is estimated to take another approximately two years. A bridge lease would be necessary to meet the requirement during the ship construction period.

[16] Colton, Tim. "Containerships Built in U.S. Shipyards." ShipbuildingHistory.com. February 25, 2008 <http://www.shipbuildinghistory.com/history/merchantships/containerships.htm>.

Ship Information

Ship Name: VIRGINIAN

Ship Type: Containership

Capacity: 1,300 TEU

Owner/Country: Sealift, Inc., USA

Year Ship Built: 1984

Country of Origin: Germany

Builder: Bremer Vulkan Schif

Documentation Country: USA

Conversion Shipyard: Anacortes, WA

DOD Customer: Joint Munitions Command, Rock Island, IL

Mission: DOD Munitions shipments in support of OIF/OEF

Contract Information:

Contract Number: N0003308C5500

Commencement of Contract: 01 OCT 2007

Option Periods: one-year firm period and three one-year options

Redelivery Date: 15 OCT 2011

Total Contract Costs: $39.8 M

Future Plans:

The VIRGINIAN was chartered to provide additional sealift of ammunition to and from the Arabian Gulf in support of ongoing operations in Iraq and Afghanistan. The Joint Munitions Command does not anticipate having a requirement beyond the expiration of the current contract.

Ship Information

Ship Name: TRANSPACIFIC

Ship Type: Tanker

Owner/Country: Transatlantic Lines/USA

Year Ship Built: 2001

Country of Origin: Turkey

Builder: Celiktekne Shipyard

Documentation Country: USA

Conversion Shipyard: Guam Shipyard

DOD Customer: Defense Energy Support Center (DESC)

Mission: Far East Petroleum Shuttle

Contract Information:

Contract Number: N0003306C5409

Commencement of Contract: 22 NOV 2006

Option Periods: one year firm period, three one-year options and one 11-month option

Redelivery Date: 22 OCT 2011

Total Contract Costs: $25.5 M

Future Plans:

The TRANSPACIFIC is a small, shallow draft product tanker that operates in the Far East providing fuel to military bases and supply depots with shallow port facilities for DESC.

A new vessel constructed in the United States to meet this mission would require a firm, long-term requirement from the DESC. To construct a purpose-built vessel for the DESC requirement, the cost is estimated to be between $50-75 M. This is not a firm number as no oceangoing tankers of this small size have been constructed in US shipyards in more than three decades.

In terms of the cost to operate the tanker, the commercial costs are estimated to be $3.5M per year, based upon recent experience with operating government-owned contractor-operated vessels.

The RFP to award process takes approximately one year and design and construction of the vessel is estimated to take another approximately one to two years. A bridge lease would be necessary to meet the DESC requirement during the ship construction period.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/M08UM00129
26 Mar 08

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00128
26 Mar 08

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00127
26 Mar 08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00126
26 Mar 08

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of new antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00135
15 Apr 08

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam M. Robinson, JR.

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable Ted Stevens,
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00136
15 Apr 08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00137
15 Apr 08

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/08UM00138
15 Apr 08

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address rising incidences of food allergies and anaphylaxis among service members and their families. The report also examines any current research to address this epidemic and the need to establish a national program on food allergy and anaphylaxis that will work in coordination with other federal agencies.

Specifically, the report states current literature does not clearly demonstrate supporting evidence for an increase in the United States of anaphylaxis specifically caused by food allergies. In addition, inpatient admissions for anaphylactic shock indicate no apparent increase in trends.

The Food Allergy Research Consortium, supported by Naval Institute of Health, is organizing clinical trials on a peanut allergy therapy. The Food Allergy Anaphylactic Network is an established national program to support research efforts, to promote legislation and regulation, and public education for food allergies and anaphylaxis.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 31 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure
As stated.

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 31 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035-6050

Dear Mr. Chairman:

As directed by the National Defense Authorization Act for Fiscal Year 2008, Section 533, Public Law 110-181, the Department of the Navy submits the Navy and Marine Corps "Reports on Utilization of Tuition Assistance by Regular and Reserve Components." I am responding on behalf of the Secretary of the Navy.

In Fiscal Year 2007 the Department of the Navy funded 263,913 courses for 96,911 Sailors and Marines. The Department funds Tuition Assistance for the active component which includes reserve Sailors and Marines activated for over 120 days or called to active duty under Presidential Call Up or Title 10. Separate records are not maintained for Reservists requesting or receiving Tuition Assistance.

Sailors may take 15 to 20 credit hours (five courses) without an approved education plan. Subsequent courses must be in an approved education plan in order to receive funding through Tuition Assistance or Navy College Program Afloat College Education. Marines may take up to 12 credit hours before obtaining an approved Educational Plan.

The Department of the Navy appreciates the Committee's interest in Tuition Assistance, a vital tool for maintaining a ready force. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairman Levin.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 14 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during calendar year (CY) 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Our April 1, 2008 report identified one of nine major shipbuilding contractors, Bollinger Shipyards of Lockport, Louisiana, who disclosed that they employed H-2B visa workers during the reporting period but information as to the number of H-2B visa workers was not yet available. Bollinger reports that they did not directly employ any H-2B visa workers during CY 2007, however, they disclosed that they had contracted for approximately 800 H-2B visa workers during CY 2007. Bollinger received authorization to hire up to 800 H-2B visa workers for CY 2008. Bollinger reports that, as of April 1, 2008, they have 674 H-2B visa employees in a total workforce of 2,416 employees. This is consistent with information verified in consultation with the DOL.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

John S. Thackrah
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, Murtha, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, Murtha, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Levin, Murtha, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, Levin, Reyes, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Silvestre Reyes
Chairman, Permanent Select
Committee on Intelligence
House of Representatives
Washington, DC 20515-6415

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, Inouye, Murtha, Rockefeller, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Peter Hoekstra
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable John D. "Jay" Rockefeller
Chairman, Select Committee on Intelligence
United States Senate
Washington, DC 20510-6475

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, Inouye, Murtha, Reyes, and Holt.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Christopher S. "Kit" Bond
Vice Chairman

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAR 25 2008

The Honorable Rush Holt
Chairman, Select Intelligence
Oversight Panel
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Conference Report 110-477, the enclosed report provides the management plans and budget detail for the Angel Fire program.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, Inouye, Murtha, Reyes, and Rockefeller.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ray LaHood
Ranking Minority Member

REPORT TO CONGRESS

ON

ANGEL FIRE

Prepared by:
US Marine Corps
Marine Corps Combat Development Command
MCB Quantico, 22134-5000

March 2008

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

REPORT REQUIREMENT

The Fiscal Year 2008 National Defense Authorization Conference Report 110-477 directed the Secretaries of the Army and Navy to provide program management plans for the Constant Hawk and Angel Fire programs, including respective budget detail to the congressional defense and intelligence committees within 60 days of enactment of this Act.

BACKGROUND

The US Marine Corps' Angel Fire program is a material solution deployed in response to US Central Command's Joint Urgent Operational Needs Statement (JUONS) CC-0154 and I Marine Expeditionary Force (Forward) Urgent Universal Needs Statement (UUNS) 0635UA identifying the need for dedicated, day/night, Wide Field of View Persistent Surveillance (WFOV-PS) capabilities at the tactical level. The currently deployed Angel Fire consists of a manned, airborne platform (King Air 90), a belly mounted Electro-Optical (EO) sensor providing dawn to dusk coverage, communications downlink, and ground receive equipment. Angel Fire provides a WFOV-PS, Near Real-Time (NRT) imagery downlink to a battalion Combat Operations Center (COC), greatly enhancing situational awareness within the unit's battlespace. Angel Fire is not a USMC acquisition program of record nor is it intended to become one. It is a response to urgently requested requirements in support of the Global War on Terror (GWOT).

DESCRIPTION

Angel Fire provides a near-real time, imagery downlink covering a wide-field of view of approximately $16km^2$. This WFOV-PS capability provides battalion commanders a timely (i.e., near real-time) and unprecedented view of the battle space for planning, tactical overwatch, and effecting actions against the threat. Angel Fire imagery also supports forensic analysis and provides intelligence analysts a contextual backdrop within which disparate combat information and intelligence can be fused in both time and space.

STATUS

The currently deployed Angel Fire capability set, consisting of four contracted, EO capable King Air 90 platforms, was incrementally deployed between September and December 2007. A fifth aircraft remains in CONUS for system configuration management, testing, training, and demonstration/exercise support. For the deployed set, maintenance of sensors and communication downlink and ground receive equipment is presently provided by an Air Force Research Lab detachment of approximately twenty personnel. Technically and operationally, with the exception of occasional communications equipment malfunctions, Angel Fire has performed to expectations, and the four sensor platforms are operational. Supported units have reported Angel Fire provides significant utility for the tracking of vehicles/individuals from points of departure to location of event; determining origin of indirect fire events; overwatch of Iraqi Forces in response to significant activity reports; providing a better understanding of how anti –Iraqi Insurgents (AII) use time and space to plant IEDs; and how certain criminal elements perform black market activities. A WFOV-PS infrared (IR) sensor is now technically mature

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

and efforts are underway to develop and field an EO/IR capability supporting continuous day/night operations.

TRAINING

At the supported unit level, terminal operators (i.e., viewer client) consist of Marines and soldiers performing watch functions. Training of terminal operators is minimal, thirty minutes or less, as the graphic user interface is based on familiar screen displays (i.e., Google Earth, TIVO). Commanders and their staff can observe the imagery or have the field of imagery manipulated. To date, all training has occurred at home station, in a classroom, and during the unit's final pre-deployment exercise (MOJAVE VIPER) at Twenty-nine Palms, California. During conduct of MOJAVE VIPER for designated units, Angel Fire is also incorporated into the exercise and provides NRT WFOV-PS imagery downlink to a commander and his staff.

TECHNOLOGY

The major Angel Fire components (i.e., cameras, processors, communications links, servers, storage disks) are state of the art COTS and GOTS hardware. The uniqueness of Angel Fire lies within its software. Angel Fire is the only tactical WFOV-PS capability that takes imagery from independent camera heads, integrates them onboard, and downlinks a seamless, cohesive, meta-tagged, 16km^2 WFOV image to supported units within ten seconds of image capture. The second capability set, EO/IR, anticipated to be fielded in 2QFY09, is likewise leading edge technology and will incorporate a WFOV-PS IR imagery capability into the existing Angel Fire EO system. The gimbal on which the IR sensor resides is unique and allows for a stable platform in which the 16Mpx focal plane array sensor can step stare the field of view.

QUANTITY REQUIRED

Angel Fire was deployed in response to a UUNS and JUONS submitted by I MEF Fwd. The requirement for this capability remains, as expressed by a Marine Corps Forces Central Command (MARCENT) decision paper stipulating the requirement for two capability sets. The deployment of a second capability, consisting of five EO/IR capable King Air 90 aircraft, will extend coverage to 24/7. Both capability sets, WFOV-PS EO and EO/IR, will remain in support of Multi-National Force-West (MNF-W) until the capability is no longer needed. Upon deployment of the Angel Fire WFOV-PS EO/IR capability set, there will be a total of nine WFOV-PS King Air 90 platforms supporting MNF-W.

FUNDING (see Figure 1)

Most of the funding supporting the deployment of Angel Fire is through GWOT supplementals. GWOT funds have been used to purchase and maintain the air to ground data links, the airborne EO sensor package, the ground station, the leasing of aircraft and aircraft services, and commencing in August 2008, when management of Angel Fire shifts from AFRL to the USMC, the contracting of personnel to maintain sensors, ground data links, and the ground station.

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

$M	Prior	FY07	FY08	FY09**	FY10	Total
JIEDDO						
RDT&E		19.59	34.7			54.3
USMC						
RDT&E		16.6		0.1		16.7
PMC		8.8	15.8			24.6
O&M		15.0	16.0*	2.0		33.0
Navy R&D		4.1				4.1
AFRL R&D		8.0	8.0	5.0		21.0
QTY (Capability Sets, A/C)			1,4	2,9	2,9	
TOTAL		72.1	74.5	7.1	2	216.1

** Baseline Funding Only

= requested / programmed

* 5.9 rec'd/10.1 in GWOT request

Figure 1 – Angel Fire Funding Profile

SCHEDULE

Figure 2 represents the schedule based upon date funds are received.

TIMELINE FOR DEPLOYMENT OF ANGEL FIRE

Deployment of the second capability set, Angel Fire WFOV-PS EO/IR, depends upon when funding, for contracting aircraft/aircraft services and purchase/integration of WFOV-PS IR sensors, is received. Lead time for preparation of King Air 90 aircraft is approximately five months, followed by integration of sensors, mandated safety checks, and system testing. As with the first capability set, deployment of the second set will be incremental, with the fifth platform arriving in-theater approximately five months after the first.

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

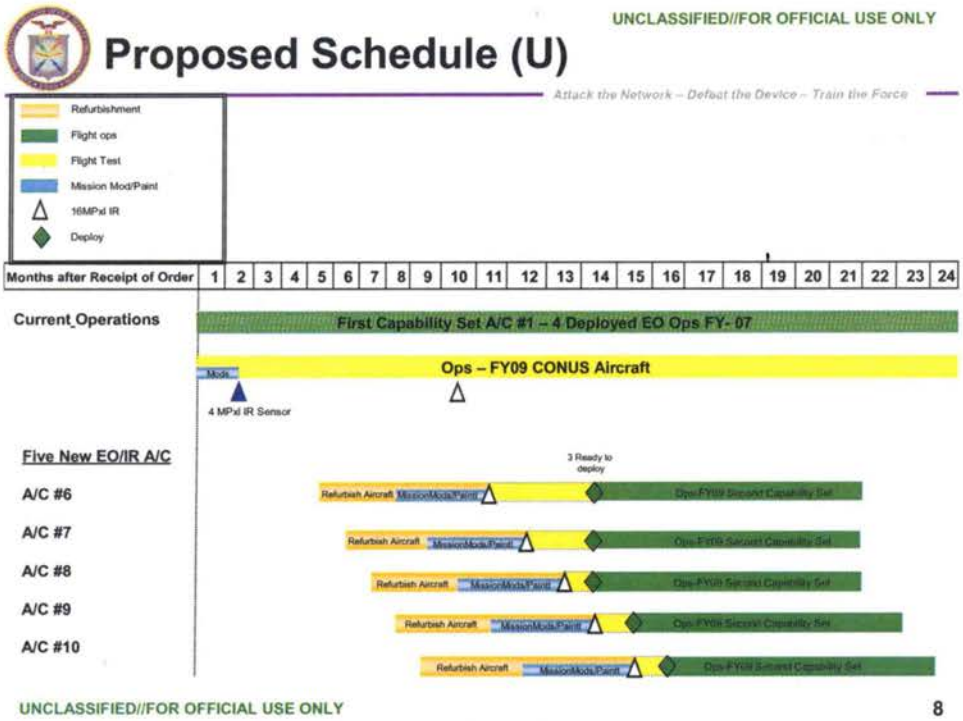


Figure 2 – Proposed Schedule for Angel Fire

WAY-AHEAD

The USAF Wide Area Airborne Surveillance Program, a new start in FY09, effectively bundles the enduring requirements of both the US Army and Marine Corps. The technical thresholds and objectives for each service's requirements link back to respective urgent requirement solutions that spawned Constant Hawk and Angel Fire and also address service considerations beyond the immediate theater focus. Increment 1 will address the USAF podded requirements. Increment 2 addresses both US Army's payload for the WARRIOR Unmanned Aircraft System (UAS) and the USMC payload for the SHADOW UAS. The fact that both the WARRIOR and SHADOW programs are managed by the same Army program office will further tie the two services together.

FOUO – This document contains information exempt from mandatory disclosure under the FOIA. Exemptions(s) b(2) and b(4) apply.

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 3 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20510-6035

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Murtha.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 3 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 3 1 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAR 31 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the FY08 Defense Appropriations Conference Report 110-477, the enclosed report provides the requested information regarding exclusion of Permanent Military Professors (PMP) from authorized officer strengths. In summary, the report identifies a need for 35 additional exemptions above the current exemption authority of 50.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

REPORT TO CONGRESS

ON

USE OF EXCLUSION FROM AUTHORIZED OFFICER STRENGTHS

IN THE CASE OF PERMANENT MILITARY PROFESSORS

Prepared by:
United States Navy
Deputy Chief of Naval Operations
(Manpower, Personnel, Training and Education)
Washington DC

March 2008

Report Requirement

Subsection 508 of the National Defense Authorization Act for Fiscal Year 2008 directed the following in regards to Permanent Military Professors of the Navy:

"*(d) USE OF EXCLUSIONS FROM AUTHORIZED OFFICER STRENGTHS - Not later than March 31, 2008, the Secretary of the Navy shall submit to the congressional defense committees a report describing the plans of the Secretary for utilization of authorized exemptions under section 523(b)(8) of title 10, United States Code, and a discussion of the Navy's requirement, if any, and projections for use of additional exemptions by grade.*"

Authorized Exemptions

Under section 523(b)(8) of title 10, United States Code, Permanent Professors of the United States Naval Academy, as well as career military professors at the United States Military Academy and the United States Air Force Academy, shall be excluded in determining authorized strengths in the grades of lieutenant commander, commander or captain (or service equivalent), at a level not to exceed 50 from any such academy. The terms Career Military Professor, Permanent Military Professor (PMP), and Permanent Professor are used interchangeably.

Navy's Requirements

The Navy's Permanent Military Professor (PMP) program was created to establish a cadre of career naval officers with both doctoral degrees and extensive operational experience to instruct at the United States Naval Academy, the Naval Postgraduate School and the Naval War College. The Navy's PMP requirements are at the grades of commander and captain as follows:

a. The United States Naval Academy (USNA) has a requirement for 50 PMPs. The Navy is in the process of building its cadre of USNA PMPs to meet this requirement.

b. The Naval Postgraduate School ~~(NPS)~~ has a requirement for four PMPs.

c. The Naval War College (NWC) has a requirement for two PMPs, with the flexibility to meet instructor requirements with a third PMP if necessary.

d. The Navy has a requirement for an average of 24 to 29 PMP selectees to be enrolled in doctoral study at any given time to support maintaining a full complement of 50 PMPs instructing at the USNA, four instructing at the NPS and two instructing at the NWC. The career changing nature of the PMP program requires the right role models who are attracted and motivated to serve the remainder of their careers in academia. It is essential that the Navy invest in doctoral education of these officers to meet its instructional requirements. The Navy accomplishes this through enrollment of PMP selectees at the NPS or civilian educational institutions in programs ranging from three to four years depending upon academic discipline. For example, the Mechanical Engineering PhD in Propulsion Systems is earned through NPS in three years whereas the Naval Architecture PhD is earned through Massachusetts Institute of Technology in four years. A viable PMP career field depends on having the educational program in place to prepare fleet officers to obtain the credentials necessary to assume PMP responsibilities.

Utilization of Exemptions

The Navy applies exemptions to USNA PMPs only, per section 523(b)(8) of title 10, United States Code. Currently, the number of exemptions is 39 with deliberate plans to reach 50 by summer 2009. However, this exemption authority does not account for all PMP requirements, which in addition to the USNA include those instructing at the NPS and the NWC, as well as those enrolled in PhD programs required to provide PMPs the necessary academic credentials. Current and projected total Navy PMP requirements and exemptions by grade are provided in Table 1.

Table 1. Total Navy PMP requirements and exemptions by grade. Current exemptions highlighted in yellow. Projections for use of additional exemptions highlighted in blue. Steady state of both existing and proposed grade exemption is expected in FY11.

Institution	March 2008 CDR	March 2008 CAPT	Total PMPs March 2008	August 2008 CDR	August 2008 CAPT	Total PMPs August 2008	August 2009 CDR	August 2009 CAPT	Total PMPs August 2009
USNA	27	12	39	37	13	45	36	14	50
NPS	4	0	4	4	0	4	4	0	4
NWC	2	0	2	2	0	2	2	0	2
Enrollment in doctoral study*	7	1	8	19	0	19	21	0	21
Totals	40	13	53	62	13	70	63	14	77

* Note: Reflects an upper limit that is not to be exceeded.

Institution	August 2010 CDR	August 2010 CAPT	Total PMPs August 2010	August 2011 CDR	August 2011 CAPT	Total PMPs August 2011	August 2012 CDR	August 2012 CAPT	Total PMPs August 2012
USNA	35	15	50	34	16	50	34	16	50
NPS	4	0	4	4	0	4	4	0	4
NWC	2	0	2	2	0	2	2	0	2
Enrollment in doctoral study*	26	0	26	29	0	29	29	0	29
Totals	67	15	82	69	16	85	69	16	85

* Note: Reflects an upper limit that is not to be exceeded.

Conclusion

The Navy would welcome authority that would allow exemption for PMP requirements at the United States Naval Academy, the Naval Postgraduate School, and the Naval War College, and accommodate enrollment in doctoral education to obtain the necessary academic credentials to assume PMP responsibilities.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 01 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 01 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 123 of the FY 2008 National Defense Authorization Act (Public Law 110-181) directed the Secretary of the Navy, in consultation with the Department of Labor (DOL), to provide a one-time report identifying the average number of H-2B visa workers employed by the major shipyards in the construction of United States ships during CY 2007, and the number of H-2B visa workers petitioned by the major shipbuilders for CY 2008, as of the first quarter of 2008.

Based on responses provided by the shipbuilding contractors and verified in consultation with the DOL, there are no H-2B visa workers employed by eight of nine major shipbuilding contractors or first-tier subcontractors responsible for delivery of a vessel. Additionally, none of these contractors have submitted a petition for H-2B visa workers for CY 2008. This negative response covers the eight shipbuilding contractors identified in the enclosed list for the CY 2007 and CY 2008, as of the first quarter of 2008.

We have an affirmative response that Bollinger Shipyards has H-2B visa employees during the reporting period. This is consistent with information verified in consultation with the DOL. We have not yet confirmed Bollinger Shipyards' average number of H-2B visa workers and will provide the requested information by April 14, 2008.

Please let me know if I can be of further assistance. A similar letter is also being provided to Chairmen Levin, Skelton, and Inouye.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY MAJOR SHIPBUILDING CONTRACTORS
(Calendar Year 2007 through First Quarter Calendar Year 2008)

Northrop Grumman Shipbuilding 1000 Access Road Pascagoula, MS 39567 Mailing Address: P.O. Box 149 Pascagoula, MS 39568-0149	Northrop Grumman Shipbulding Avondale Operations 5100 River Road Avondale, LA 70094 Mailing Address: P.O. Box 50280 New Orleans, LA 70150-0280
Northrop Grumman Shipbuilding 4101 Washington Avenue Newport News, VA 23607-2770	Bath Iron Works 700 Washington Street Bath, ME 04530
General Dynamics Electric Boat 75 Eastern Point Road Groton, CT 06340-4989	NASSCO 2798 Harbor Drive San Diego, CA 92113
Marinette Marine Corporation is a subsidiary of Manitowoc Marine Group, address: Marinette Marine Corporation 1600 Ely Street Marinette, WI 54143-2434	Austal 1 Dunlap Drive Mobile, AL 36602 Mailing Address: Austal P.O. Box 1049 Mobile, AL 36633

Executive Summary

Navy Medical Inspector General Report on Inspections of Military Quarters Housing Medical Hold and Medical Holdover Personnel (Inspections performed July 2008)

Military Quarters Housing Medical Hold and Holdover Personnel

Number of Facilities Inspected: 64

	Assignment		Baseline		Special Medical	
Component	**Met Standard***	**Not Met Standard***	**Met Standard**	**Not Met Standard**	**Met Standard**	**Not Met Standard**
Navy	738	1	701	38	739	0

*** Represents the number of medical hold or holdover whose quarters have met or not met the housing standard.**

Cost to bring inspected facilities to standard ($ Thousands): $906K

Component	Assignment	Baseline	Special Medical
Navy	$0	$906K	$0

Per the Bureau of Medicine and Surgery (BUMED) memo dated 9 July 2008 and the National Defense Authorization Act of January 16, 2008, Bureau of Medicine and Surgery (BUMED) medical activities were tasked in coordination with Commander Navy Installation Command (CNIC) and Commander Headquarters Marine Corps (CMC) to inspect quarters housing medical hold and holdover personnel using standards and checklists developed by the Senior Oversight Committee, Line of Action (LOA) 5 Working Group. All inspected quarters housing medical hold or holdover personnel met, or will meet after pending renovations, the applicable quality standards of assignment and were appropriate for the service member's medical condition.

Inspection Reports

Report Organization:

1. Service Definitions/Terms of Reference
2. Assignment of Personnel to Quarters for Medical Hold and Holdover Status
3. Facilities Used to House Personnel
4. Military Quarters Housing Medical Hold and Holdover Personnel

Appendix 1: Quarters Housing Medical Hold and Holdover Checklist

1. Service Definitions/Terms of Reference:

Inpatient - An individual, other than a transient patient, who is admitted (placed under treatment or observation) to a bed in a Medical Treatment Facility that has authorized or designated beds for inpatient medical or dental care. A person is considered an inpatient status if formally admitted as an inpatient with the expectation that he or she will remain at least

another hospital or does not actually use a hospital bed overnight. This does not include a patient administratively admitted to the hospital for the purposes of a same day surgery procedure.

Outpatient: An individual receiving healthcare services for an actual or potential disease, injury, or life style-related problem that does not require admission to a medical treatment facility for inpatient care.

Medical Hold: Enlisted personnel housed in a Medical Hold Company (MHC) under the cognizance of the MTF whose current condition precludes them from returning to full duty.

Medical Holdover: Retention of reservists on active duty to receive medical treatment for service-connected injuries, illnesses and/or disease until determined Fit for Duty by the Benefit Issuing Authority (BIA), Senior Medical Officer (SMO) and/or Medical Status Review Officer (MSRO), or until final disposition is determined by the PEB.

Assignment: DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that Medical Hold and Holdover personnel shall be assigned/referred to housing that exceeds or meets the applicable quality standards and that: (a) is appropriate for their expected duration of treatment,(b) supports a non-medical attendant, if authorized, (c) supports accompaniment by their dependents when desired and not in compatible with their treatment,(d) and is appropriate for their pay-grade.

Baseline: DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that housing must be in good overall condition with no major problems with any of the building systems. Additionally, it is important for personnel to be able to adequately control the temperature in their housing units. There shall be no mold, exposed lead-based paint, unsealed asbestos, inadequate air circulation, and any other environmental/safety/health hazard.

Special Medical Requirements: DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that Medical Hold and Holdover personnel may have certain medical conditions that result in various functional limitations. For these members, it is essential that special accommodations and services be provided as an integral part of their medical treatment plan as determined by the primary care physician, patient, and chain of command.

Medical Evaluation Board (MEB): A body of physicians attached to one of the medical treatment facilities (MTFs) whose commander or commanding officer (CO) has been expressly designated to hold "convening authority" (CA) for MEBs to identify members whose physical and/or mental qualification to continue on full duty is in doubt or whose physical and/or mental limitations preclude their return to full duty within a reasonable period of time. They are convened to evaluate and report through on the diagnosis; prognosis for return to full duty; plan for further treatment, rehabilitation, or convalescence; estimate of the length of further disability; and medical recommendation for disposition of such members.

Department of the Navy Disability Evaluation System (DES): A case usually enters the Department of the Navy DES when a Medical Evaluation Board (MEB) is dictated for the purpose of evaluating the diagnosis and treatment of a member who is unable to return to military duty because the member's condition most likely is permanent, and/or any further period

of temporary limited duty (TLD) or LIMDU is unlikely to return the member to full duty. A condition is considered permanent when the nature and degree of the condition render the member unable to continue naval service within a reasonable period of time (normally 8-12 months or less). Note: The term "permanent" does not necessarily mean the condition is unfitting.

Physical Evaluation Board (PEB): The PEB provides three stages of review (a documentary review, a due process hearing upon demand, and appeal by petition) for a Service member whose physical conditions have been referred to it by a medical evaluation board (MEB) of an MTF that believes that the member's physical condition raises questions about his ability to perform the duties of his or her office, grade, rank or rating.

- Referral of a Medical Evaluation Board report to the PEB can come from two sources; i.e. Limited Duty board reports referred for PEB evaluation by service headquarters, and Medical Board reports submitted directly to the PEB by a medical treatment facility (MTF).

Distinguishing "Fit for Duty" from "Fitness for Continued Naval Service":

- "Fit for Duty" refers to a pronouncement by a physician or by an MEB that a patient previously on light or LIMDU has healed from the injury or illness that necessitated the member's serving in a medically restricted duty status.

- "Fitness for Continued Naval Service" is a finding made exclusively by the Department of the Navy PEB in determining an active duty service member's ability to continue serving in the Navy or Marine Corps.

2. Assignment of Personnel to Quarters for Medical Hold and Holdover Status:

The disposition and assignment of personnel post inpatient status is contingent on the member's medical status, recommendation of treating physician, treatment requirements, family status, and service component. The following is the DON Medical Hold and Holdover Status of 03 July 2008.

	Military Quarters Housing Medical Hold Personnel, and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing	Number of Personnel Housed
Number of personnel	1/788	620/788	15/788	60/788	43/788	49/788 (N/A*)	788

X= MH and Holdover Rooms/Housing Units
Y= Total number of MH and Holdover
***N/A= Standards do not apply to private homes**

3. Facilities Used to House Personnel:

Military Medical Treatment Facility (MTF): A facility established for the purpose of furnishing medical and/or dental care to eligible individuals. This does not include battalion aid stations, post/base in or out processing facilities, or soldier readiness processing (SRP) facilities unless they are an integral part of the MTF.

DoD Owned Military Family Housing: Housing owned by the U.S. Navy for occupancy by eligible members with dependents and funded with family housing dollars

DoD Owned Unaccompanied Personnel Housing: Housing owned by the U.S. Navy for occupancy by permanent party single military personnel and funded with O&M, N.

Leased or contracted Housing or Lodging on the community: Leased housing is private sector housing leased by the Navy for occupancy by families, unaccompanied personnel, or transient personnel.

DoD/NAF owned Lodging (including Fisher Houses): DoD/NAF owned Lodging is transient housing with management by non-appropriated fund personnel to provide housing support for transient personnel whether on temporary duty or travel orders, or personnel and dependents on permanent change of station orders.

Housing Assignment: Personnel are assigned on a first come first served basis upon receipt of an application or official request of housing using waiting list procedures that ensure equitable access to housing for all families, bachelors, and transients. Personnel with medical conditions will be assigned to housing that is appropriate for their unique conditions.

Support for Personnel in Non-Governmental Housing: The Patient Administrative Department at each activity is used as the medium to obtain medical support for a member residing at home by communicating or linking to Case Management or other appropriate offices within the hospital and also for answering general questions.

Administratively, if the member is undergoing an MEB or PEB, the Patient Administrative Department communicates with the member as often as necessary to ensure proper and efficient submission of any MEB or PEB.

4. Military Quarters Housing Medical Hold and Holdover Personnel:

Summary of Past Inspections:

The material condition of housing quarters maintained by CNIC, CMC and BUMED are monitored and reported using a centrally managed continuous inspection process as described in NAVFAC MO-322, Inspection of Shore Facilities. In general, Sustainment Restoration and Modernization (SRM) requirements identified during the inspection process are documented in a web accessible database. The Navy and Marine Corps are moving from an installation implemented inspection system to centrally funding inspections by professional engineering teams. Inspections will be completed for all class II type 2 real property assets on a specified schedule based on type and significance of facility using a single service wide set of evaluation criteria that are consistent with all applicable codes and standards.

Facility asset condition is evaluated using the industry standard metric Facility Condition Index (FCI) which is calculated as total unfunded SRM requirement divided by asset Plant Replacement Value (PRV). The calculated FCI is consistent with the Quality factor Q as defined by OSD and is the reporting metric common to all service branches.

Additionally, to specifically support the inspection process for the Wounded Warrior and Medical Hold/Holdover facilities, a detailed check-list was created using the DEPSECDEF Housing Standards and is used by the inspection team to perform the semi-annual Regional Medical Inspector General inspections and the annual Wounded Warrior/Medical Hold/Holdover housing facilities inspection conducted by the Navy and the Marine Corps.

At the activity level, housing and facility management personnel conduct inspections as required (daily, weekly, monthly, quarterly, etc). Navy housing staffs perform regular and recurring inspections to ensure that standards are maintained for a quality living environment in permanent party and transient housing facilities. Inspectors ensure that resident living areas are kept clean and that all amenities such as furnishings, linen, and appliances are adequate and in good condition. Housing inspectors report maintenance, repair, and safety items to facility maintenance personnel for correction and schedule work to minimize disruption to residents. Facility Managers participate in facility inspections, fire and safety inspections and review deficiencies identified by maintenance personnel (government or contractor) while performing preventative maintenance inspections (PMIs).

BUMED, CMC and CNIC have the authority at the local level to correct known requirements or deficiencies up to a certain threshold. BUMED, CMC and CNIC have a documented process for submission of special projects over this threshold.

Current Inspection Protocol/Process:

The housing standards for this inspection were developed by the Senior Oversight Council LOA 5 sub working group staffed with representatives from OSD H&CS, Air Force, Army, Navy, and

Marine Corps. The inspection checklist contains questions separated into three categories outlined in the housing standards: Assignment, Baseline, and Special Medical.

Due to the inspection being based on the medical condition of the military service member, BUMED took the lead on the military quarters housing medical hold and holdover personnel inspections, and were requested to coordinate with BUMED facility managers, when BUMED was the facility owner or to coordinate with CNIC and CMC when they were the facility owner, respectively. All final inspections were submitted through BUMED. Teams typically included medical case managers, housing managers, facility managers, engineers of various disciplines, engineering technicians and tradesmen of various backgrounds. The teams were advised to perform a visual inspection of each housing facility after reviewing requirements generated in VFA, recurring service calls identified in DMLSS or MAXIMO and regularly scheduled PMIs.

Activity responses were varied. Most activities indicated that their medical hold space met the standard and as a result no actions or estimates were required. Other activities indicated that their housing met the standard, but recognized that deficiencies existed in the facility and provided estimates accordingly. In all cases when a facility did not meet the standard, renovations were underway to correct the deficiency. The results are reported in the three categories of "Assignment", "Baseline" and "Special Medical":

Findings:

National Naval Medical Center (NNMC) Bethesda, MD

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Mercy Hall, Bldg 50	52/0	$0	52/0	$0	52/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/54	52/54	0/54	0/54	0/54	2/54 (N/A)	54

Comments: In December2007, NNMC Bethesda completed Mercy hall renovations with associated site enhancements to correct Americans with Disability Act (ADA) and Uniform Federal Accessibility Standards (UFAS) deficiencies. ADA/UFAS compliance included

providing accessible public and occupant room toilets, drinking fountains, exterior and interior doors, and corridors. A new elevator serving all floors is operational.

Interior finishes including the entrance lobby were replaced during renovation providing a uniform level of finish quality. Exterior finishes of new work match existing materials and colors as closely as possible. A building security camera system and emergency call system in the residents' rooms were installed. Enhanced exterior lighting was added to the building and walkways.

NNMC is currently constructing an ADA compliant covered ramp providing direct access to Mercy Hall from the Naval Exchange. Construction is expected to be complete by 15 Oct 2008.

NNMC is planning a FY09 BUMED Special Project to modernize the HVAC system. Construction should start in Dec 2008.

The Case Manager completed an individual room inspection and assessment of the living quarters for compliance with standards and to ensure the individual's healthcare needs were being met. All rooms were found appropriate for each individual's medical condition, expected duration of treatment, and supportive of their needs. Several individuals were interviewed and expressed great satisfaction with the accommodations, accessibility and facility support.

Naval Hospital (NH) Bremerton/Naval Station Bremerton

		Assignment		**Baseline**		**Special Medical**	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
		1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/1	0/1	1/1	0/1	0/1	0/1	1

Comments: None.

NH Camp Pendleton, CA/MCB Camp Pendleton

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg H-49	18/0	$0	18/0	$0	18/0	$0
2	Bldg 1396	2/0	$0	2/0	$0	2/0	$0
3	Bldg 1398	1/0	$0	1/0	$0	1/0	$0
4	627 Pusan Drive	1/0	$0	1/0	$0	1/0	$0
5	245 Inchon Street	1/0	$0	1/0	$0	1/0	$0
6	336 Taegu Court	1/0	$0	1/0	$0	1/0	$0
7	335 Elison Court	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/25	21/25	0/25	0/25	4/25	0/25	25

Comments: None.

Naval Health Clinic (NHC) Hawaii/MCB Hawaii/NAVSTA Pearl Harbor

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	B7046	6/0	$0	6/0	$0	6/0	$0
2	2817B Chow Circle	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/7	6/7	0/7	0/7	1/7	0/7	7

Comments: None.

United States Naval Hospital (USNH) Okinawa/Commander, Fleet Activities Okinawa

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
	Camp Butler	4/0	$0	0/4	$400,000	4/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/4	0/4	0/4	4/4	0/4	0/4	4

Comments: At United States Naval Hospital (USNH) Okinawa, Japan, there are four medical hold rooms. Theses rooms are for outpatients who require very short recovery near the hospital. Any member in need of more intense recovery is either housed on the inpatient ward or evacuated off the island to a stateside location. USNH Okinawa identified an estimated $200K in ADA improvements needed and another $200K in facility maintenance improvements needed. USNH Okinawa has planned a Fiscal Year (FY) 09 improvement plan that will utilize Indefinite Delivery, Indefinite Quantity (IDIQ) contracts via NAVFAC as well as a Simplified Acquisition Procedures (SAP) Projects for both internal and external repairs. Renovation is planned for completion in 4th quarter FY 09.

Naval Medical Center (NMC) San Diego, CA/Naval Base San Diego

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 26	91/0	$0	91/0	$0	91/0	$0
2	NAVSTA-Bldgs 3362, 3203, 3205, Vesta	40/0	$0	40/0	$0	40/0	$0
3	Fleet ASW – Bldgs 552, 551, 82	4/0	$0	4/0	$0	4/0	$0
4	NAB Coronado – Bldg 500	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/157	136/157	0/157	0/157	21/157	0/157	157

Comments: None.

USNH Yokosuka, Japan/Commander Fleet Activities Yokosuka, Japan

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 1393	2/0	$0	2/0	$0	2/0	$0
2	Bldg 1721	3/0	$0	3/0	$0	3/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/5	5/5	0/5	0/5	0/5	0/5	5

Comments: None.

NH Camp Lejeune/Marine Corps Base (MCB) Camp Lejeune

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	H-14 (Wounded Warriors Battalion)	30/0	$0	30/0	$0	30/0	$0
2	FC 478 (French Creek Reserve Support Unit-RSU)	22/0	$0	22/0	$0	22/0	$0
3	BOQ 2603	1/0	$0	1/0	$0	1/0	$0
4	BEQ 51	3/0	$0	3/0	$0	3/0	$0
5	FC 311	4/0	$0	4/0	$0	4/0	$0
6	FC 310	1/0	$0	1/0	$0	1/0	$0
7	HP 309	1/0	$0	1/0	$0	1/0	$0
8	5102 Lecaptain Ct	1/0	$0	1/0	$0	1/0	$0
9	974 East Peleliu Dr	1/0	$0	1/0	$0	1/0	$0
10	1701 Butler Dr	1/0	$0	1/0	$0	1/0	$0
11	683 Tarawa Blvd	1/0	$0	1/0	$0	1/0	$0
12	4056 Lilja Ct	1/0	$0	1/0	$0	1/0	$0
13	992 Case Ct	1/0	$0	1/0	$0	1/0	$0
14	5198 West Peleliu Dr	1/0	$0	1/0	$0	1/0	$0
15	4196 Stranz Ct	1/0	$0	1/0	$0	1/0	$0
16	5099 Lecaptain Ct	1/0	$0	1/0	$0	1/0	$0
17	4124 Cail Dr	1/0	$0	1/0	$0	1/0	$0
18	2593 Bougainville Dr	1/0	$0	1/0	$0	1/0	$0
19	5354 Hoffman Ct	1/0	$0	1/0	$0	1/0	$0
20	5588 Florida Ave	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/0	62/75	0/0	0/0	13/75	0/0	75

Comments: During the inspection, most of the Wounded Warriors were present. The inspectors had an opportunity to speak directly to most members. Some of the rooms in H-14 were currently under renovation. During the renovation, the Wounded Warriors were moved to other rooms. All occupants assigned were very pleased with their care and lodging accommodations. Several findings were: peeling paint, electrical management issues, rust on light fixtures, small amounts of mold, closet tracking issues, yard maintenance, some furniture not functional and windows requiring curtains (many rooms had sheets or blankets covering the windows). The facility manager, Mr. Mahoney has these items for action. Some personnel expressed concerns regarding the length of time needed for the PEB process.

The French Creek Wounded Warriors Barracks is approximately two years old. Most patients assigned to the French Creek Barracks are capable of transporting themselves to medical appointments. This facility was in good condition.

The RSU building was not inspected last year. It was determined that this building did not meet facility standards and was not in compliance with the Marine Corps standard for adequate housing for wounded warriors. One RSU patient assigned to this facility was transferred to the Wounded Warriors Battalion H-14 and the few that were capable of transporting themselves were transferred to French Creek.

NHC Charleston, SC/Naval Weapons Station Charleston, SC

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	NWSC	1/0	$ 0	1/0	$ 0	1/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	1/5	0/5	0/5	0/5	0/5	4/5	5

Comments: None.

NHC Corpus Christi, TX/Naval Air Station (NAS) Corpus Christi

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 1281	21/0	$ 0	21/0	$ 0	21/0	$ 0
2	PPV Corpus Christi, TX	1/0	$ 0	1/0	$ 0	1/0	$ 0
3	PPV Portland, TX	1/0	$ 0	1/0	$ 0	1/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/23	21/23	0/23	0/23	2/23	0/23	23

Comments: All findings were minor. BEQ findings included: a stove and freezer not working properly, a clogged toilet, and one room with excess furniture. Work orders have been submitted to correct problems. The overall assessment of the facility indicated that individuals have suitable lodging . Patients are capable of transporting themselves to medical appointments.

PPV Corpus Christi: The home had water leaks, mold, and insect problems. The PPV representative has been notified of issues. The command will follow-up. PPV-Portland: Overall assesment of the facility indicated no problems. Occupant was pleased with his care and lodging accomodations.

NHC Great Lakes, IL/NAVSTA Great Lakes, IL

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Admiral Boorda Hall, Bldg 30	45/0	$ 0	45/0	$ 0	45/0	$ 0
2	Admiral Boorda Hall, Bldg 32	6/0	$ 0	6/0	$ 0	6/0	$ 0
3	Bldg # 7121, ship 17	208/0	$ 0	205/0	$ 0	3/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/273	259/273	14/273	0/273	0/273	0/273	273

Comments: Recruits and Sailors (Transitional Holding Unit-Bldg # 7121) are housed in group berthing units that have communal heads. Additionally, the HVAC is on a master control for the entire building therefore residents do not have the ability to individually control room temperature. The BUMED representative from NHC Great Lakes concurred that the medical condition of the service members in question did not necessitate individual berthing. Because the recruits and sailors live in group berthing units the HVAC is on a master control for the entire building. The IG representative from NHCGL determined the medical condition of the service members in question did not necessitate this ability. If a recruit or Sailor has a special need RTC Staff accommodate the berthing unit to meet that need.

Future Plans:
Recruit Training Command will continue housing any Recruit in a medical hold status at SHIP 17 (Bldg 7121). No future plans are contemplated to upgrade this facility as it meets the needs of service members in question. Berthing Units are adequate. The NHC Great Lakes Patient Administration staff will conduct annual inspections of the living conditions as required.

The NAVSTA Great Lakes will continue housing other Sailors in a medical hold status at Admiral Boorda Hall. Currently NAVSTA Great Lakes is upgrading the HVAC system and this project will be completed Fall 2008. No future plans are contemplated to upgrade this facility as it meets the needs of service members in question. Rooms are adequate. The NHC's Patient Administration staff will conduct annual inspections of the living conditions as required.

NH Jacksonville, FL/NAS Jacksonville, FL

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 822	7/0	$ 0	7/0	$ 0	7/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/34	7/34	0/34	0/34	2/34	25/34	34

Comments: None

NHC New England/Portsmouth Naval Shipyard, NAVSTA Newport/Naval Submarine Base New London/NAS Brunswick/Saratoga Springs Naval Support Unit

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 749	1/0	$ 0	1/0	$ 0	1/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/1	1/1	0/1	0/1	0/1	0/1	1

Comments: None.

NH Pensacola, FL/NAS Pensacola, FL

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 1090 NTTC Corry Pensacola	20/0	$ 0	20/0	$ 0	20/0	$ 0
2	Bldg 3251 NAS Pensacola	5/0	$ 0	5/0	$ 0	5/0	$ 0
3	Bldg 1084 NAS Pensacola	5/0	$ 0	5/0	$ 0	5/0	$ 0
4	Bldg 600 NAS Pensacola	1/0	$ 0	1/0	$ 0	1/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/31	31/31	0/31	0/31	0/31	0/31	31

Comments: Bldg 1090: Overall outstanding. Rm 103 Bathroom tub leak – repaired. Rm 106 mild mold – recork done. Rm 107 small ants – pesticide sprayed. Rm201 Stove knob needs to be replaced – knob ordered. Rm 202 Stove back burner not warming properly – part of a unit, contract to replace the unit in process; Leaking faucet – repaired with new washer. Rm 204 Kictchen faucet leak – replaced washer, repaired. Rm 207 Bathroom vent mild mold – vent cleaned. Rm 215 Bathroom tub leak – replaced washer –repaired. Rm 304 Dirty vent diffuser – Cleaned. Rm 307 Dirty vent diffuser – Cleaned, Living room outlet cover required – replaced. Rm 308 Dirty diffuser – cleaned.

NMC Portsmouth, VA/NMCP

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	NMC Portsmouth, Bldg 282	19/0	$ 0	2/17	Service calls/ ST014 pending $505,970	19/0	$ 0
2	NAS Norfolk S30	35/0	$ 0	35/0	$ 0	35/0	$ 0
3	NAS Norfolk R63	4/0	$ 0	0/4	$ 0	4/0	$ 0
4	NAS Norfolk A51	4/1	$ 0	0/5	$ 0	5/0	$ 0
5	NAS Norfolk A52	5/0	$ 0	0/5	$ 0	5/0	$ 0
6	NAS Norfolk A128	2/0	$ 0	0/2	$ 0	2/0	$ 0
7	NAS Norfolk SP17	1/0	$ 0	0/1	$ 0	1/0	$ 0
8	NAS Norfolk A54	1/0	$ 0	1/0	$ 0	1/0	$ 0
9	NAS Norfolk A125	1/0	$ 0	1/0	$ 0	1/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel							
NMCP	0/28	19/28	0/28	2/28	0/28	7/28	28
NAS Norfolk	0/65	0/65	0/65	54/65	0/65	11/65	65

Comments: NAS Norfolk R-63 is a Transient facility operated by the Navy Gateway Inns and Suites. They have identified a $17m project for upgrades that has not been funded and is not programmed. These upgrades (including HVAC replacement, installation of a sprinkler system, replacement of bathroom fixtures, paint, upgrades in cable and telephone lines) are not related to changes needed to adequately house Medical Hold or Holdover patients.

NMC Portsmouth's (NMCP) Med Hold personnel were housed in Bldg 282, a building constructed in 1994 in rooms originally designed for students at the Naval School of Health Sciences (NSHS). There are no designated med-hold rooms, so assignment is based on next available, with consideration provided to special circumstances/conditions. The NMCP Fleet

Liaison Office/Patient Administration Office assigns Med Hold company personnel to billeting and has the responsibility for ensuring special needs are communicated.

Of the 19 Med Hold personnel, four were assigned Case Managers and 1 of those managers was based in Camp Lejeune. The level of staffing at NMCP prohibits the assignment of a Case Manager to each med-hold patient, however, it was clearly stated that all med holds meeting the criteria for case management were assigned one.

Internet/computer access is not available in individual rooms in Bldg 282. Internet/Wireless access is available in a centralized internet room, as well as, in other buildings on the installation, including the Command library. It was also noted that several residents did not have computer log on access. There was no process during Med Hold check in/outs to include Information Management Department (IMD) so that they could be assigned temporary log-ons in order to use the computers. A new process was implemented 15 Aug 2008.

Telephone/basic cable access is not available in individual rooms in Bldg 282. Although appropriated funds are not authorized to be used to fund individual BEQ rooms, it can be used to fund Med Hold rooms in order to meet the DOD Housing standard as long as the rooms are designated as such and can be uniquely identified. Per IMD communications division, the only additional cost is the estimated $20/month for cable service. Phone equipment is readily available and the building is already hard-wired with Cox Cable. Arrangements were made to ensure several rooms were designated to expedite cable delivery service through the existing FISC contract.

The draperies and carpets were dirty/dingy in all the rooms and required deep cleaning. A special project, (ST014-08), dated 6 Aug 08, was submitted by Facilities to replace all the draperies, carpets and vanities in the "dorm rooms" of the Med Hold building. NMCP has begun corrective action since funding is available at the local level. The work is proceeding with current year funds ($506,000).

Future Plans: Wounded Warrior/Patriot Inn accommodations were approved for construction for Bldg 3, 7th floor at an estimated cost of $3.8M. This floor will reportedly house those outpatient med-hold/wounded warrior personnel who are ambulatory but require assistance and plans reportedly comply with the DOD Housing standards used during this inspection. Groundbreaking was 3 Jul 2008. Estimated start date for construction is mid-late September 2008.

No plans to provide Wounded Warrior barracks were anticipated, however, several projects are currently underway at Norfolk NavSta to expand quarters for all sailors on the installation to meet the requirement for all ship-assigned sailors. Med-Holds are currently assigned to available bachelor quarters throughout the installation and are not designated specific buildings or rooms. Sustainment, Restoration and Modernization funding, used to renovate/repair existing installation buildings/quarters, is severely limited and are prioritized based on the installation's operational needs, resulting in several unfunded requirements for older buildings requiring renovation or repair. NMCP patient administration department and/or case managers are utilized to determine if berthing is adequate for Sailor assignment and medical needs.

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5 November 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L . 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 64 facilities housing medical hold and holdover personnel were inspected in July 2008, identifying $906,000 in deficiencies that have been programmed for correction. All quarters for medical hold and holdover personnel will be inspected again in January 2009, as per the statute, and to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton and Murtha.

Sincerely,

P. J. Goodin
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5 November 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L . 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 64 facilities housing medical hold and holdover personnel were inspected in July 2008, identifying $906,000 in deficiencies that have been programmed for correction. All quarters for medical hold and holdover personnel will be inspected again in January 2009, as per the statute, and to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Murtha and Inouye.

Sincerely,

P. J. Goodin
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5 November 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L . 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 64 facilities housing medical hold and holdover personnel were inspected in July 2008, identifying $906,000 in deficiencies that have been programmed for correction. All quarters for medical hold and holdover personnel will be inspected again in January 2009, as per the statute, and to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton and Inouye.

Sincerely,

P. J. Goodin
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

5 November 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L . 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 64 facilities housing medical hold and holdover personnel were inspected in July 2008, identifying $906,000 in deficiencies that have been programmed for correction. All quarters for medical hold and holdover personnel will be inspected again in January 2009, as per the statute, and to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

P. J. Goodin
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 3 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Skelton, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 03 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Skelton, Levin and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 3 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Levin, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 03 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on the Department of the Navy's (DON) Next Generation Enterprise Network (NGEN) initiative was jointly developed by the Secretary of the Navy; the Assistant Secretary of Defense for Networks and Information Integration; Under Secretary of Defense for Acquisition, Technology and Logistics; and Director of Operational Test and Evaluation.

The report describes the plans, schedule, and planned funding for the NGEN initiative. The report also addresses the follow-on efforts to replace the Navy Marine Corps Intranet (NMCI) contract and provides the DON with the basic computing and communications infrastructure and core services for the continental United States and selected locations overseas, similar to those currently provided by the NMCI contract. The planning process for NGEN continues to evolve while the DON currently defines NGEN requirements for building a firm basis for development of an acquisition strategy and an oversight methodology. A well considered concept of operations and firm requirements are key to the acquisition strategy which will provide the roadmap for the appropriate level of oversight. These key elements will be completed before the end of Fiscal Year 2008, at which time an update will be provided.

A copy of the report is also being sent to Chairmen Skelton, Inouye and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable David Obey
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, and Byrd. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Robert C. Byrd
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Skelton, Inouye, Murtha, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Skelton, Murtha, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJP

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Skelton, Inouye, Levin, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Levin, Inouye, Murtha, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

MAY 1 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 National Defense Authorization Committee Report 110-77, the enclosed report provides the Navy's assessment of the shipboard personal locator beacon.

A similar letter has been sent to Chairmen Skelton, Inouye, Murtha, Byrd, and Obey. If I can be of further assistance, please let me know.

Sincerely,

BJ Penn

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

U. S. NAVY REPORT TO CONGRESS

ON

SHIPBOARD PERSONAL LOCATOR BEACON

May 2008

I. REPORT REQUIREMENT

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 for the Department of Defense included language that directs the Secretary of the Navy to submit a report to the congressional defense committees that provides the Navy's assessment of the potential feasibility and impact of using shipboard personal locating beacons. Specifically the language inquires about the feasibility of such technology, the potential benefits of such a system, the cost associated with integrating this technology to current ships, and an estimate of the potential cost savings associated with the use of such a system.

II. BACKGROUND

The purpose of the Sailor personal locator beacon as originally conceived was to aid in the monitoring of the location of Sailors on board ships. For example, in the event of a shipboard casualty situation, the location of each individual could be automatically reported to help identify any missing personnel. The goal of such a system would be to monitor manpower locations onboard ship.

In Fiscal Year 2005, the Office of Naval Research (ONR) began researching technologies that could be used to track and monitor Sailors onboard ships. This effort was supported by a total of $2.4 million in congressionally directed RDT&E,N funding to ONR for "Shipboard Personal Locator Beacon" research in Fiscal Years 2006 and 2007. The goal of the research was to develop and demonstrate an inexpensive and simple system for improving safety and monitoring of Sailors. Communications technologies were researched that could be integrated with existing onboard communications systems and provide information without the need to install additional onboard infrastructure.

There is no present Navy requirement for Sailors to be continually located aboard ship. Sailors are mustered for the following reasons:

- Daily muster. Known as "quarters for muster, instruction and inspection." This muster is combined with other administrative and training requirements.
- Special evolutions. Sailors have specific assignments for special evolutions, such as flight quarters for helicopter operations or underway replenishment operations. When these evolutions are called away, assigned Sailors proceed to pre-designated watch stations. Watch stations report to the designated control station when they are 'manned and ready' to commence the evolution. 'Manned and ready' means that the watch station has adequate personnel on station, adequate equipment on station, adequate communications, and the personnel and equipment is ready to begin the operation.
- Warfare or shipboard casualty conditions. Similar to special evolutions, when necessary, ships call away conditions that require Sailors to proceed to pre-designated watch stations, such as setting General Quarters. Watch stations report to the designated control station when they are 'manned and ready.'
- Man Overboard. When a man overboard is called away all Sailors proceed to pre-designated mustering locations. Results are reported to a central control station. This

muster is usually completed in 7 to 10 minutes for surface combatants and small amphibious ships.

This report is based in part on the results of this ONR research, the work of the Naval Research Advisory Committee, previous reports to Congress on the subject of safety and manpower reduction, and the Navy's assessment of the relative merits of a shipboard personal locator beacon.

III. ASSESSMENT OF THE FEASIBILITY AND IMPACT OF USING SHIPBOARD PERSONAL LOCATING BEACONS

1. Feasibility of developing an automated personal location and monitoring system

Location and monitoring systems are available commercially in numerous forms and could feasibly be procured and installed, or developed. Several systems exist in industry that could track Sailor location inside an existing ship. However, on existing ships these technology solutions have been found to be cost prohibitive due to the number and configuration of different communication systems, onboard interferences, and complexity of transmitting information wirelessly through the ship hull and superstructure compartments, and are deemed of questionable value. Installation of the system would require a complete retrofit with an existing onboard wired and local area network communication system. The key issue on the feasibility of the development and fielding of this system would be on the cost effectiveness of communication and local area network interfaces, approval cycle with the Space and Naval Warfare Systems Command (SPAWAR) for this type of technology, and ensuring that there are no electronic interferences to other shipboard systems. The Navy sought to apply an existing technology to design an affordable automated personal location and monitoring system for retrofits that was not cost prohibitive and extremely complicated.

ONR's technology development and testing investments have resulted in the Shipboard Personal Locator Beacon (S-PLB) system design. S-PLB uses existing communications and safety systems already installed fleetwide to provide both safety monitoring and locating of Sailors. The research has shown that it is technically feasible to install an automated personal location monitoring system.

2. Benefits to shipboard operations and safety

The benefit of a personal locator system to shipboard operations and safety is questionable. The Navy currently has no requirement for such a system. Knowing the location of all personnel at all times does not, in and of itself, improve operations and safety. Current mustering evolutions are incorporated into the operations of the ship and are not good candidates for replacement by electronic means. For example, merely seeing, on a monitor, that all of the assigned personnel have arrived at their watch station does not inform leadership that the station is ready to commence the operation. The station will still need to follow procedures, prepare the personnel and equipment, and report 'manned and ready.' Theoretically an automated muster could provide situational awareness when a Sailor is believed to be unaccounted for. However, with the frequent changes in crew composition and inability for any automated system to be as

full-proof as a sight muster, it is unlikely that mustering requirements could be eliminated. Navy surface ships are now being outfitted with man overboard indicator devices that are specific to this situation. Because mustering is integrated to other functions on a ship and is a relatively simple and rapid process, it is not believed that replacing mustering with an automated means will improve operations or safety.

The benefit of knowing the location of personnel during non-mustering situations is also questionable. Establishing the location of an individual in a non-emergency situation would not seem to justify the installation of a locator system. Ships have many communication means including fixed and portable telephones, portable radios and announcing systems. In addition, ships are finite and organized in such a way that a ship-wide search can be conducted in a short period of time. There are also privacy concerns to be considered in the use of a technology that allows someone to know the location and track the movements of another individual at any moment in time. The capability could be easily defeated by the Sailor simply removing the device and leaving it behind while the Sailor proceeded to another location on the ship.

Locating personnel in a shipboard casualty situation could have some benefit. For example, in a scenario where a ship sustains damage and personnel casualties, a personal locator system could show the location of personnel and possibly speed medical response to the scene. However, this scenario assumes that the locator system continued to operate ship-wide after damage and that the personnel were not already deceased and were still in need of care. A locator system is unlikely to provide the complete situational picture; fool-proof location of all casualties, best access to the casualties, and condition of the casualties. Therefore, it is unlikely that a personal locator system would completely replace current procedures and investigation after damage occurs. Ships are an enclosed environment, and the task of physically locating crew members via currently existing methods is not unduly difficult or time-consuming in non-emergency or casualty situations. More analysis would be required to determine if a personal locator system could benefit operations and safety to support use in a shipboard casualty environment.

3. Estimate of the cost to develop and integrate

Because ONR has already funded development of the S-PLB, the costs associated with development and improvement of this technology should be minimal. These costs have already been incurred with support of a variety of efforts throughout the Navy and ONR. The current system could be evaluated by temporary installation on a few active ships to determine the usability of the specific hardware and the challenges associated with shipboard environment and onboard systems interfaces in interferences. Additional costs could be generated based on the results of operational testing if modifications are necessary.

The cost of integrating this system with existing ship's systems and installing on ships will vary from class to class. Typical evaluations of equipment are conducted under temporary alterations of the ship (TEMPALT). It is estimated that the evaluation installation of individual Sailor personal locator beacon systems onboard four sample ships within a class of ships for a period to include one full deployment and associated training would be:

- Hardware including individual locator beacons and required shipboard displays with network interfaces = $250k per ship;
- Contractor supported installation of localization modules and display =$80K per ship;
- Fleet support and Navy planning yards = $180K for four ships;
- Engineering support of evaluation = $250K for four ships; and
- Total estimated cost for fleet evaluation on four ships for 18 months = $1.75M.

4. Estimate of the potential reduction to manpower costs or workload

The Navy has no requirement for a personal locator system. The Navy has implemented numerous automation systems to reduce ship operating costs; however those examples replaced existing personnel or functions. There are no personnel or systems currently assigned to continually locate personnel. Therefore, there are no known efficiencies or cost savings if a personal locating system were developed and installed. Depending on the support requirement of the installed system, there is a potential that additional manpower would be required for system maintenance.

IV. SUMMARY

The technology for a personal monitoring system exists and developmental work for a ship-board application has been done. Continued integration work and shipboard testing could be conducted. However, the Navy currently has no requirement for such a system and the potential savings and benefit to operations and safety are questionable.

[redacted] Unclassified upon [redacted] closure

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Minority Member

[redacted]

SECRET//NOFORN [redacted]

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

[redacted]

[redacted]

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Skelton, Inouye, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

[redacted]

[redacted]

THE SECRETARY OF THE NAVY
WASHINGTON, D.C 20350-1000

April 15, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report on advanced cruise missiles is submitted.

Specifically, the report provides an assessment of international advanced cruise missile capabilities relative to the United States' capabilities and the feasibility, cost, and schedule for developing similar capabilities for the Navy.

A copy of the report is also being provided to Chairmen Skelton, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 05 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the second quarterly report. The report is an update to the first report submitted in February 2008 and further addresses the concerns of the Senate Armed Services Committee as identified in Senate Report 110-77; reviews progress and accomplishments related to Naval OA from January 1, 2008 through March 31, 2008; and describes the Navy's upcoming activities for implementing OA.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

SECOND QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems
Washington, DC 20376

May 2008

Table of Contents

I. Report Requirement 3
II. NOA Accomplishments: January 2008 through March 2008 3
Goal 1 – Change Naval processes and business practices 4
Goal 2 – Provide Naval OA systems engineering leadership 20
Goal 3 – Change Navy and Marine Corps cultures 24
III. Summary 25

I. Report Requirement

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-77, this document serves as the Second Quarterly Report to Congress on Open Architecture (OA). The scope of this report includes noteworthy Naval Open Architecture (NOA) accomplishments of the Open Architecture Enterprise Team (OAET) and individual Domains (Air; Command, Control, Communications and Intelligence (C4I); Space; Submarines; Surface; and Marine Corps) and the Anti-submarine Warfare (ASW) Community of Interest (CoI) from January 2008 through March 2008. Significant future events that are planned through December 2008 are also discussed.

The Surface Domain consists of the Program Executive Offices (PEOs) for Carriers, Littoral and Mine Warfare (LMW), Integrated Warfare Systems (IWS), and Ships. The Air Domain consists of the PEOs for Tactical Aircraft (T), Unmanned Aviation and Strike Weapons (U&W), Air ASW, Assault and Special Mission Programs (A), and Program Management (NAVAIR 1.0). The Domains for Submarines, C4I, Space, are represented by PEOs Submarines (SUBS), C4I and Space, respectively. The Marine Corps Domain is represented by Marine Corps Systems Command and includes the PEO for Land Systems (LS).

II. NOA Accomplishments: January 2008 through March 2008

The accomplishments during this period are mapped to the three NOA strategic goals which were established in the Naval OA Strategy in December 2006 and reaffirm objectives from the Assistant Secretary of Navy (Research, Development and Acquisition) (ASN(RD&A)) OA Policy of August 5, 2004 and Deputy Chief of Naval Operations (Warfare Requirements and Programs) (OPNAV N6/N7) OA Requirements letter of December 23, 2005. The strategy is comprised of three overarching goals, addressing the business, technical, and cultural aspects of OA transformation. These goals are:

Goal 1 – Change Naval processes and business practices to utilize open systems architectures in order to rapidly field affordable, interoperable systems. This goal includes addressing governance challenges; creating policy and guidance materials; developing new business models (such as the Acoustic Rapid Commercial-off-the-Shelf Insertion or A-RCI program); incorporating OA principles and practices in programs and acquisition materials such as contracts; and encouraging competition and improving interoperability by making information and design artifacts available for reuse by programs.

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs. Included in this goal are collaborative efforts in systems engineering; process standardization; leveraging OA to provide quick wins and proofs-of-concepts that provide new capabilities to the Fleet; and providing performance enhancements to fielded systems and development projects.

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles. The primary mechanisms for achieving cultural change are formal training and communications and outreach.

These goals are supported by efforts performed either across the Naval Enterprise by the OAET or within individual Domains (by PEOs, CoIs, Programs, or System Commands (SYSCOMs)). This report summarizes those efforts.

Goal 1 – Change Naval processes and business practices to utilize open systems architectures in order to rapidly field affordable, interoperable systems (e.g. policies, assessments, contracts, design disclosure, reuse of components, etc.)

a. Governance

- The OAET membership was expanded to include the LMW, Ships, and Carriers Program Executive Offices (PEOs), along with the Marine Corps Systems Command (MARCORSYSCOM), Naval Air Systems Command (NAVAIR), Naval Sea Systems Command (NAVSEA), Space and Naval Warfare Systems Command (SPAWAR), and the ASW CoI. This membership expansion was enacted to place a direct representative from these organizations in the OAET, rather than being collectively represented as was the case in the original OAET structure.
    - Established the OA Lead Council (OALC) and convened the first meeting on March 20, 2008 to discuss enterprise collaboration. The OALC consists of the PEOs from Carriers, C4I, IWS, LMW, Ships, Submarines, Space, Submarines and Tactical Aircraft (representing the Air Domain). Collectively, PEO IWS, PEO Ships and PEO Carriers comprise the Surface Domain. Other members include MARCORSYSCOM, the NAVSEA and NAVAIR OA Technical Authorities, the Deputy Assistant Secretary of the Navy for Integrated Warfare Systems (DASN IWS), NAVSEA Contracts, and the Offices of the Chief of Naval Operations (OPNAV N6F, N6R, N85, N86, N87, N88, and N091 / Office of Naval Research). The OALC will meet again in June 2008.

b. Policies / Guidance

OAET:

- In February 2008, the Secretary of the Navy established the Six Gate, Two Pass Review Process to improve Naval Acquisition Oversight. The OAET has since developed OA relevant questions to incorporate as part of program gate reviews. Incorporating questions into the review process ensures OA is addressed at appropriate milestones throughout the lifecycle. The OAET is also working to incorporate OA requirements into future revisions of the SECNAVINST 5000 series.
- As part of improving the acquisition process, System Design Specifications (SDS) was implemented concurrently with the Gate Review process. In support of this effort, the OAET provided OA language for incorporation into the SDS Guidebook.
- The OAET is actively participating in the Enterprise Data and Governance Strategy (EDGS) Integrated Project Team (IPT). The EDGS IPT was established in response to guidance from Deputy Chief of Naval Operations for Communication Networks (OPNAV N6), and Deputy

Department of the Navy (DoN) Chief Information Office, to develop actionable recommendations for presentation to the 3-Star Navy Information Technology Management Council (ITMC) for decision and Navy-wide policy implementation. A key focus of this IPT is data sharing, but the IPT will also address architectures, standards and other Information Technology (IT) and information management areas which are under OPNAV N6 / DoNCIO and ITMC cognizance. This effort will link NOA with Service Oriented Architecture (SOA) pilot projects and related acquisition efforts across the Naval Enterprise. The OAET is also coordinating with OPNAV N6 and the ITMC to extend NOA principles and practices into the acquisition and management of systems beyond National Security Systems.

Domains:

- C4I Domain
    - PEO C4I and SPAWAR 02 collaborated to add Contract Data Requirements List (CDRL) language related to OA assessment and component reuse into the Procurement Desktop Defense (PD2) system used to prepare acquisition documents. PD2 is the system used to generate Requests For Proposals (RFPs) and contract documents. This capability will enable the enterprise reuse of OA-related CDRLs.
- Surface Domain

(i) Expeditionary Warfare

- PEO LMW is responsible for the management of many programs covering wide-ranging missions from Naval Special Warfare to Mine Warfare. The variety of systems in development within PEO LMW supported the addition of a separate PEO LMW representative on the OAET. Participation on the leadership council by PEO LMW, as well as addition of an LMW Domain Action Officer and Representative to the OAET has been effected in the last quarter.

(ii) PEO IWS

- PEO IWS is working with NAVSEA Code 02 (Contracting) to include OA language in SYSCOM guidance such as the NAVSEA Acquisition Planning Guide and Acquisition Strategy Guide. Additionally, PEO IWS is developing a *Surface Navy Combat Systems Strategy for Achieving Open Architecture Acquisition Management Plan* that will include substantial OA guidance and serve as a master strategy for combat system development. It is expected to be completed in June 2008.

- Space Domain
    - PEO Space is collaborating with OPNAV N6 and SPAWAR to explore the potential for Software Reconfigurable Payloads (SRP) on future space missions. SRP has the potential to avoid the need to launch new satellites to achieve responsiveness to evolving threats and satisfy operational needs in a timely manner at nominal cost.

- Submarine Domain

    - The Submarine Domain has initiated training for all submarine Program Offices on the Open Architecture Assessment Tool v1.1 (OAAT v1.1). The assessment tool includes the Modular Open System Approach (MOSA) Program Assessment and Rating Tool (PART) review (required for Milestone Decision Authority Review). All Submarine Domain Program Offices are expected to complete assessments using the OAAT v1.1 by July 2008. The assessments will include PMS 415 (Counter Measures) and PMS 404 (Torpedoes). The addition of these two Program Offices will bring Submarine Domain's assessment number from six major programs to eight.

- Marine Corps Domain

    - MARCORSYSCOM updated the Marine Corps Statement of Work (SOW) and CDRL and Tracking Tool (SCATT) to incorporate language contained in the *Naval Open Architecture Contract Guidebook for Program Managers* in March 2008. SCATT is a contracting support tool available to all Marine Corps project officers, and is used as SOW and CDRLs are being generated. Automated tools provide ability to provide advice, timed for when that advice is most likely to be needed.

- ASW CoI

    - The ASW CoI is defining OA-driven software development and reuse governance policies and metrics. The CoI is also developing ASW Family of Systems capabilities under the guidance of the Navy Enterprise Architecture and Data Strategy Policy and EDGS IPT.

c. <u>New Business Models Developed</u>

- Air Domain

    - The program manager for Advanced Tactical Aircraft Protection Systems (PMA 272) is responsible for providing Electronic Warfare (EW) self-protection systems for all Marine Corps and Navy combat aircraft. PMA 272 currently manages the acquisition of 16 different radio-frequency (RF) countermeasure and infrared countermeasure products used to protect 29 types of fixed- and rotary-wing aircraft. PMA 272 is applying OA principles to facilitate a reduction in the diverse number of fielded stand-alone self-protection systems. Every 24 months, legacy systems will be incorporated into one of two integrated EW suites with common components, one for strike aircraft and one for assault and larger aircraft which will replace the current panoply of systems. The goal is to field EW equipment that is modular and scalable and uses common hardware and software across a range of different aircraft to counter a variety of future threats.
    - In concert with the common component approach, PMA 272 has implemented an OA approach to EW systems called Common Aircraft Protection System. This system provides a common infrastructure for all of the aircraft on which to "hang" different EW

components. It will be achieved by developing a set of specifications that defines the interfaces, services and supporting formats required for a component, such as a missile warning system or RF jammer, to be able to plug into the EW system. This 'plug and protect' approach will provide the ability to add a new component or function to each different aircraft's EW system and have it work automatically without having to do any technical analysis or manual reconfiguration. The Interface Control Documents embodying the specifications will be based on widely supported industry standards, especially for key interfaces, and suppliers will be able to engineer their EW components to comply with these standards.

- C4I Domain

  - Integrated Shipboard Network System (ISNS) (Fiscal Years 2008 through 2010) and Consolidated Afloat Network and Enterprise Services (CANES) (Fiscal Year 2010 and out years) – The common theme throughout PEO C4I's Master Plan is the reduction, or necking down, of systems in every enclave across the C4I Domain and reusing the same terminal, network, computing environment for all functions and security levels. This approach is expected to reduce development, test, procurement, installation, training, and support costs. ISNS will deliver a Common Computing Environment (CCE) (over Fiscal Years 2008 through 2010) and begin a migration toward CANES (beginning in Fiscal Year 2010 and continuing in the out years) which will build on ISNS, and deliver CCE, Cross Domain Solutions across multiple security levels, and core SOA services beginning in Fiscal Year 2011.
  - By moving C4I programs to a CCE architecture with smaller, CoI service capabilities riding on that infrastructure, PEO C4I intends to make the spiral development cycle much shorter for the Command and Control and Intelligence / Surveillance applications. In addition, by using an incremental build approach, mature technologies can be rapidly fielded at lower risk. In Fiscal Year 2008, there are three ISNS / CANES migration efforts to highlight: Risk Reduction Experimentation, the CANES Early Adopter Process and the planning of Early Adopter installations in operational strike group ships.
    - As a way to reduce risk, the ISNS program will put its software, products and services in Limited Technical Experimentation and Limited Objective Experiment events in which ISNS and CANES migration developmental products are used by operational forces from both the Navy and Joint Services. In Fiscal Year 2008, the experimentation will be Maritime Operations Center-based and focus on Joint / Maritime operational-to-tactical command and control challenges, and rapid, smooth, dynamic, agile Joint / Maritime Force integration.
    - An Early Adopter is an application or system that is a 'stepping stone' to CANES migration and will be worked through ISNS in Fiscal Years 2008 through 2010. Presently, 21 potential candidate programs have been identified from existing applications and more candidates are expected. The Early Adopter Process is another CANES migration risk reduction effort that will be essential to a seamless capability transition. The Early Adopter process is also integrated with the CANES Joint Capabilities Integration Development System (JCIDS) process; Early Adopter inputs are currently

feeding the CANES Capability Description Document (CDD).

- OPNAV challenged PEO C4I to install ISNS / CANES migration Early Adopters on an operation Expeditionary Strike Group or Carrier Strike Group in Fiscal Year 2009. A Cross Enterprise Strike Team was established to address the Fiscal Year 2009 Strike Group selection and recommended the Lincoln Strike Group for the first Early Adopter network installation. Planning efforts are underway to support the successful Fiscal Year 2009 USS Lincoln Strike Group Early Adopter installations as part of the ISNS / CANES migration risk reduction efforts.

- CANES epitomizes the necking down approach by migrating four shipboard network programs down to one common shipboard network and common services; it meshes with the Defense Information System Agency's Net Centric Enterprise Services as well as the PEO IWS's efforts towards a common computing environment and the PEO Enterprise Information Systems' Next Generation Enterprise Network. The business approach to the CANES program is based on a Competitive Business Model which mirrors industry's movement towards SOA, which is expected to result in lower costs for Future Capability. CANES Increment One Initial Operational Capability is scheduled for Fiscal Year 2011; Low Rate Initial Production will be in Fiscal Year 2012 and Full Rate Production will start in Fiscal Year 2013. CANES Increment Two Milestone C is expected in Fiscal Year 2015.
- PEO C4I recently held the second CANES Industry Day (March 19, 2008) attended by over 500 industry attendees from more than 160 companies. The objective of the event was to prepare industry for a draft RFP release this summer. Industry attendees submitted approximately 120 questions that will be evaluated and addressed.

- Surface Domain

(i) Expeditionary Warfare

- PEO LMW has initiated development of a Mission Module OA Business Model Guide. The purpose of this document is to provide an overview of the Mission Module OA Business Model, and document organizational relationships, reporting responsibilities and required deliverables. This guide is in the early stages of review and will be released in Fiscal Year 2009.
- The Joint Counter Radio Controlled Improvised Explosive Device Electronic Warfare (JCREW) spirals 3.1 and 3.2 leveraged modular open system architecture contract language to minimize cost and maximize performance and upgrade ability. The first Spiral 3.1 system is to be delivered in November 2008. JCREW Spiral 3.3, next generation suite, will promote open business and architecture concepts with contractual language.
- PEO LMW Mine Warfare Program Office (PMS 495) is developing Organic Post Mission Analysis for Mine Countermeasure systems, integrating five legacy software components into a common architecture and graphical user interface. The program office is also developing requirements for a Life Cycle Sustainment facility (integration lab) and is establishing processes for technology insertion (TI) utilizing open business and open technical architecture principles.

(ii) PEO IWS and PEO Ships

- DDG 1000 (USS Zumwalt) Open Systems Management Plan (OSMP) was completed in March 2008. This plan captures the architectural, technical, process, and business practices in support of open systems development. Its creation is consistent with the recommendation of the Naval OA Contract Guidebook for Program Managers that such a plan be a deliverable required in the CDRL.
- PEO IWS is developing a Surface Navy Combat Systems Architecture Description Document (ADD) detailing the framework for guiding the PEO's transformation from delivering uniquely designed systems for U.S. Navy surface ships to a combat system product line. This objective architecture will be released to the Surface Navy Community in 4th Quarter Fiscal Year 2008. The ADD will align with, and be managed in concert with, other Naval and Joint enterprise architecture and standards initiatives, as they are defined, to support reuse of common core assets across the larger Naval, Joint and coalition community and interoperability with other Naval, Joint and coalition in a net-centric environment. This is being done in an evolutionary fashion with ultimate instantiation of forward-fit in CG(X) and back-fit in other platforms.
- PEO IWS initiated a Value Stream Analysis in January 2008 with the goal to develop a Future State Process for Enterprise Software Development and Delivery. The first session resulted in a baselined "As Is" state set of metrics for CG modernization. The focus of the follow-on session is on defining a software development process that can deliver Advanced Capability Builds (ACB) to the Surface Navy every two years and identify challenges in making the ACB process a reality for the Surface Navy community. The ability to deploy new capabilities more rapidly to the Fleet is a foundational step for the *Surface Navy Combat Systems Strategy for Achieving Open Architecture Acquisition Management Plan* being developed.
- PEO IWS is responsible for the Common Display Services (CDS) and Common Processing Services (CPS) programs that provide core Display and Processing services in support of the common objective architecture for combat systems and Surface OA Way Ahead. The CDS contract was awarded in November 2007 while the CPS RFP was released in March 2008. Both CDS and CPS provide component elements to the objective architecture being defined in the ADD.

- Space Domain

  - Exploring SRP systems engineering efforts as potential solutions for the development of future space systems. SRP could be embedded on a satellite, in its ground infrastructure system or in both. It is designed in a modular, flexible, and extensible manner such that it efficiently utilizes size, weight, and power allocations that are available on the spacecraft or other payload / platforms. SRP is a promising concept and the feasibility of implementing it for the Mobile User Objective System (MUOS) ground infrastructure is being explored. SRP could offer the ability to expand competition in satellite development and maintenance by allowing separate vendors to construct the spacecraft and develop or upgrade the payload. Without the complexity of building the entire spacecraft, more companies will be able to compete, program or upgrade the SRP,

increasing innovation and reducing costs. SRP technology could also be used on other Naval platforms like Unmanned Autonomous Vehicles to improve communications and the performance of other missions in a dynamic battlefield environment.

- Submarine Domain

  - PEO SUBS began updating its OA implementation business model three years ago with the goal of increasing focus on the Fleet's Training, Tactics and Procedures requirements. Instead of introducing major capability improvements on an annual basis, PEO SUBS will now provide bi-annual capability improvements while delivering "service packs" every other year to afford more time to "train the trainers" on the new capabilities. The first submarine to be delivered under the new service pack model will be the USS Boise (SSN 764) in August 2009.
  - PEO SUBS has also embarked on a common procurement approach for all "dry end" processing systems, featuring the established OA standards in a SOA that promotes the sharing of processing resources among subsystems. This also enables increased Operational Availability while reducing Life Cycle Costs. Similarly, a common contracting approach to the "wet end" sensor contract approaches without inboard processing requirements, leaving that development work to the inboard subsystems.
  - PMS 435 is migrating Imaging, Electronics Surveillance Measures and Photonics programs to the A-RCI business model for TIs and Advanced Processing Builds (APB). PMS 435 developed a hybrid business model that combines elements of the Submarine Domain's TI and APB business models to address some of the unique requirements within these programs. PMS 435 will institute a TI every four years with a Capability Insertion (CI) every two years. TIs will include major hardware investments with new software builds (i.e., APB) while a CI can include hardware and/or software builds (i.e., APB). CIs are dependent on current and proven technology within the market, program funding, and submarine installation requirements. PMS 435 is now synchronizing the CI / TI business model with PMS 425 AN/BYG-1 and PMS 401's A-RCI TI/APB business model.
  - Designs for Virginia Class submarines TI-08 modernization started last quarter. PEO SUBS is addressing the migration or merging of Virginia Class submarines into the TI / APB modernization cycle. The migration of Virginia Class submarines is relatively easy; however, there are inherently unique requirements with bringing a new class and design to the existing business model. TEAMSUB Program Offices and other Program Acquisition Resource Managers within the PEO IWS, C4I, and Contractor Furnished Equipment communities are working together to insure that Virginia Class submarines maintain an OA approach during their TI-08 modernization cycle.

d. <u>Programmatic Changes</u>

- Air Domain

  - The Air Domain Technical Authority (NAVAIR 4.5) conducted a MOSA PART Assessment on the Joint Precision Approach and Landing System (JPALS) ACAT 1D program. The results from this assessment provided valuable information and insight

into the program's approach and maturity in support of the upcoming Milestone B decision process (scheduled for June 2008). A senior analyst at Deputy Undersecretary of Defense (Acquisition and Technology) Systems and Software Engineering / Assessments and Support stated the "JPALS program documentation reflects an exemplary degree of awareness, understanding, and planning for effective MOSA/OA application." Additionally, it was noted that the JPALS contract strategy included requirements drawn from the *OA Contract Guidebook for Program Managers.*

- PEO Tactical Aircraft (PEO T) is collaborating with OPNAV N88 and Headquarters Marines Corps regarding the development of an EW OA self-protection system for light aircraft.

- C4I Domain

  - In addition to the CANES effort mentioned earlier, PMW 770 conducted an OA Assessment on a Science and Technology Program titled 'Communications at Speed and Depth' during the quarter. The results and knowledge learned from this assessment will provide valuable information to support the program's upcoming Milestone B meeting, scheduled for April 2008. Engaging this program early in the acquisition life cycle has identified areas within the program where openly available interface standards can be utilized more extensively during the system design and development phase.

- Surface Domain

(i) Expeditionary Warfare

  - PMS 495 (Mine Warfare Program Office) completed an OA Assessment of one ACAT I and four ACAT II organic mine warfare programs in August 2007. The study assessed the extent that OA practices were used and the degree to which open business processes were implemented. In response to recommendations contained in the assessment, PMS 495 is transitioning from a system-centric to a mission-centric (enterprise) view where product improvement and TI decisions will be applied to optimize mission performance.

(ii) PEO IWS

  - PEO IWS has implemented Program Manager-to-Program Manager Agreements that are designed to result in an alignment of the configuration process for the Surface Fleet's combat systems. The following agreements have been reached to date:
    - PEO SHIPS / PEO IWS: FOR CG AND DDG MODERNIZATION, June 5, 2007. Establishes roles, responsibilities, and deliverables between PEO Ships and PEO IWS for the execution of the CG and DDG Modernization programs in accordance with alterations approved within the Navy Modernization Process.
    - PEO IWS / NAVSEASYSCOM, SEA 21: FOR IN-SERVICE MINE / AMPHIBIOUS / AUXILIARY (MAAC) SHIP COMBAT SYSTEM MANAGEMENT, July 27, 2007. Establishes roles, responsibilities, and deliverables between NAVSEA SEA 21, MAAC Ship Program Manager

(PMS 470) and PEO IWS 1.0 for life cycle management of MAAC ship Combat Systems (CS) to include sustainment and modernization of applicable CS elements.

- PEO SHIPS / PEO IWS: FOR NEW CONSTRUCTION AMPHIBIOUS SHIP COMBAT SYSTEM MANAGEMENT, July 27, 2007. Describes the roles, responsibilities, and deliverables between Program Executive Office, Ships (PMS 317 and PMS 377) and PEO IWS 1.0 in the planning and execution applicable to Combat System Government Furnished Equipment and Information in support of New Construction Amphibious Ship Programs.
- PEO CARRIERS / PEO IWS: FOR CARRIER COMBAT SYSTEM MANAGEMENT, July 31, 2007. Establishes roles, responsibilities, and deliverables between PEO Carriers (PMS 312 and PMS 378) and PEO IWS 1.0.
- PEO SHIPS / PEO IWS: FOR DDG 1000 Zumwalt Combat System Management, November 7, 2007. Describes the roles, responsibilities, and deliverables between PMS 500 and PEO IWS 1.0 for planning and execution of the DDG 1000 Zumwalt Class destroyer program.
- PEO SHIPS / PEO IWS: FOR CG(X) Combat System Management, November 7, 2007. Establishes and allocates the roles, responsibilities, and deliverables between PMS 502 and PEO IWS 1.0 for the planning, requirements development, design and execution applicable to support the CG(X) Program.
- PEO SHIPS / PEO IWS Memorandum to ASN RD&A: STATUS OF LITTORAL COMBAT SHIP (LCS) PM-TO-PM AGREEMENT, November 7, 2007. This memorandum documents the intention of PEO IWS and PEO Ships to pursue a future Program Manager-to-Program Manager Agreement for LCS after the follow-on ship plan is determined.

As a result of this alignment, the Navy should realize better development and fielding cycles while retaining its ability to produce preeminent combat systems. There were no new agreements signed between January 1st and March 31st.

- PEO IWS is collaborating with other communities including PEO C4I, PEO Ships, the ASW CoI, and NAVAIR to achieve greater commonality and efficiencies in how combat systems are developed and evolved in a net centric environment. A PEO IWS / PEO C4I Technical Interchange Meeting (TIM) was conducted in January 2008 to begin the process of integrating the Surface Combat Systems Architecture and PEO C4I Roadmap efforts. As a result of the TIM, PEO IWS is exploring opportunities to achieve alignment with the PEO C4I CANES effort through common displays and processing solutions.
- PEO IWS, MARCORSYSCOM and PEO LS are presently assessing the feasibility of sharing common components between Ship Self Defense System (SSDS) MK 2 and Marine Corps Common Aviation Command and Control System (CAC2S) computer programs in order to leverage Service investments in required system upgrades and reduce overall life cycle costs.

- Submarine Domain
  - PEO SUBS received new requirements from the Submarine Tactical Requirements Group

that realigned APB-09 advanced development efforts to better meet fleet priorities and schedules and improve execution of training prior to introduction of the upgrades. Additionally, PEO SUBS created a new billet – Team Submarine Deputy Technical Director – with the expected result to improve submarine combat system engineering practices and strengthen coordination across all submarine systems.

- PEO SUBS has also restructured its near and far term procurement actions to feature Open Systems Architecture breaking out imaging processing from its wet end sensor based procurement with emphasis on a SOA to be issued as Full and Open Competitions. PEO SUBS will be using a similar approach on future procurements as well.

- Marine Corps

  - Subsequent to the assessment submitted in the 1st Quarter of Fiscal Year 2008, the Distributed Common Ground System-Marine Corps (DCGS-MC) program modified its Technical Development Strategy and MOSA approach as a result of increased awareness of OA. Program Management Office training plans are being developed to ensure the staff completes the appropriate training through the Defense Acquisition University (DAU) and other on-line Department of Defense sources.

- ASW CoI

  - The ASW CoI is developing software governance policies modeled after the Software Engineering Institute's Software Product Line concept. These policies are being tailored to the defense acquisition environment with multiple programs, software developers and users from different organizations working together. The ASW CoI is also working with the Surface Combat Systems Objective Architecture as well as the Department of Defense CoI Forum and with other CoIs working in related areas.
  - PEO IWS and PEO C4I collaboratively identified core services and hardware for near term (Fiscal Year 2009) implementation of ASW Command and Control Undersea Warfare Decision Support System (USW DSS) applications as a CANES early adopter. This agreement confirms PEO IWS and C4I's commitment to SOA and open, agile, service based solutions.

e. <u>Contracts Targeted / Changed to Include OA Requirements</u>

- Air Domain

  - PMA 290, the Maritime Patrol and Reconnaissance Aircraft program office, inserted OA language into the CDD and in a Broad Agency Announcement (BAA) released to industry in January 2008 for the EP-X program. EP-X, the proposed replacement for the current EP-3 aircraft, is at a pre-technology development phase. Three companies are on contract. The purpose of the BAA is to allow vendors to look at the Navy requirements and develop a preferred systems concept. OA language was inserted into the BAA from a rapid reconfigurability perspective. A final vendor deliverable is expected in the mid-July timeframe.
  - The Presidential Helicopters program office, PMA 274, is identifying key interfaces for

the VH-71 helicopter from an OA perspective. The contract documentation for the VH-71 is also being assessed to determine what OA contract language can be inserted into the program to support Increment 2, starting in Fiscal Year 2009.

- The Aerial Target Systems Program Office (PMA 208) has included OA contracts language in the RFP, Statement of Objectives and Performance Specification for the Multi-Stage Supersonic Target ACAT IV M program.
- PMA 272 is including OA language in the acquisition documentation for Joint Allied Threat Awareness System.
- The program manager for the Hawkeye, Advanced Hawkeye and Greyhound Program Office (PMA 231) is including OA language in the E2 Hawkeye Core OA Functional Component Interface RFP, SOW, and Performance Specification.

- C4I Domain

  - Future Command and Control: Inserted OA language into the Request for Information (RFI) to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors.
  - Automated Digital Network System (ADNS) Increment III: Program assessment and reuse CDRLs were incorporated into the Low Rate Initial Production planning phases.
  - Global Positioning System Based Positioning, Navigation and Timing Service: OA language inserted into the RFI to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors.
  - Naval Integrated Tactical Environmental Subsystem Next Generation (NITESNext): Inserted OA language into the SOW identifying modular design and design disclosure as critical factors in evaluation. Existing NITES and other meteorological software components to be evaluated by vendors as potential reuse candidates.
  - Distributed Information Operations – Services: Inserted an approach for migrating deployed applications to greater degrees of net-centricity and interoperability into the SOW.
  - Distributed Common Ground System ((DCGS) Information Backbone (DIB): Net-centric program assessment completed; results helping to refine DIB SOW to further promote interoperability and secure information exchange.
  - Digital Modular Radio: OA language in SOW to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors
  - Submarine High Data Rate: Global broadcasting precision navigation timing system – included OA language in SOW to promote competition and utilization of open standards. Modular design and life cycle affordability are critical factors. Program assessment and re-use CDRL requirements were incorporated into the acquisition strategy / acquisition planning efforts.

- Surface Domain

(i) PEO IWS

  - Common Display System (CDS) Display Consoles – Two contracts were awarded to provide CDS Display Consoles in support of the DDG 1000 and Aegis

Modernization. The CDS is a family of displays that will be implemented across platform systems on Navy surface ships, submarines, and aircraft. Display consoles provide a common human machine interface to the Platform OA Computing Environment. The contracts were competitively procured via full and open competition.

- DDG 1000 (USS Zumwalt Class) new contracts, Detailed Design Integration Mod and Mission System Equipment, have implemented the Naval OA Contract Handbook language and went through an OAET review for compliance; expected contract definitization is in the 3rd Quarter of Fiscal Year 2008.
- A task order under a previous openly-competed contract was issued to the OA Track Manager Systems Integrator / Design Agent to develop a common track manager and common system track server for all Surface combat systems. Additionally, an RFP for CPS was released on March 28, 2008.

- Space Domain

  - PEO Space Systems is working to better define and streamline its Small Business Innovative Research (SBIR) topic development processes, which includes the incorporation of OA language and alignment with the PEO investment strategy. Updated processes are expected to be in place for the SBIR in Fiscal Year 2009 solicitation cycles.

- Submarine Domain

  - PEO SUBS plans to re-compete its Sonar, Tactical Control, Weapons Control, Imaging, Torpedo, and Next-generation Countermeasure in the next 18 months. PEO SUBS is structuring each competition in a common manner that implements the OA guidance language and will re-use as much as possible from one program to the other. The expected effect is less work for both the Navy and industry contracting and programmatic units.
  - An Industry Day was held to address the Integrated Submarine Imaging System and another for the overall Team SUBS that introduced industry to planned procurements in PEO SUBS.
    - Future Industry days will be held for Tactical / Weapons Control and Acoustics procurements.
    - A draft RFP will be released for each individual procurement to solicit industry's feedback to build a better understanding of the requirements and to refine the approach being implemented.
  - PEO SUBS has extended its OA by awarding the MK 54 Lightweight Torpedo's Advanced Development to a small business.
  - PEO SUBS incorporated the OA guidance language on a Sole Source Photonics Mast Procurement. PEO SUBS also has incorporated the OA guidance language into its common procurements that are in process for Imaging and other Submarine Combat Subsystem competitions.

- Marine Corps

    - A contract modification to support Joint Tactical Common Operational Picture Workstation Client and Gateway was implemented in March 2008. This modification provides engineering support to partially re-architect the Command and Control Personal Computer. All new development and re-architecting will be consistent with OA requirements.

f. Artifacts Published / Disclosed to Improve Interoperability and Encourage Competition

OAET:

- PEO C4I Net-Centric Enterprise Solutions for Interoperability (NESI) is collaborating with the PEO IWS Software, Hardware Asset Re-use Enterprise (SHARE)) Team to develop a common federated search capability for the NESI Collaboration Site and SHARE Repository; this will facilitate the discovery of existing software assets and ongoing developmental efforts by program offices desiring to reuse software.

Domains:

- Air Domain

    - The E-2C Hawkeye Early Warning and Control Aircraft program is in the process of submitting Multi-Sensor Integration (MSI) and Automatic Identification System (AIS) artifacts to SHARE auditors for preliminary intellectual property scans prior to submission into SHARE in April 2008. For the MSI component, the following artifacts will be added to the SHARE Repository: Interface Description Document, System Segment Specification, Software Requirements Specifications (SRS), the component's white paper, master requirements listing, and the component source code. For the AIS component, the following artifacts will be added to the SHARE repository: Software Project Management Plan, Software Development Plan, SRS, presentation material, financial progress reports, component model repository, and the component source code. All of the artifacts provided to the SHARE repository are government owned property.

- C4I Domain

    - Facilitated the release of the Joint Tactical Radio System (JTRS) Information Repository Scan Tool suite which contains 113 artifacts available for reuse via access to the NESI Collaboration Site and SHARE repository. Posted 198 more artifacts in the NESI Collaboration Site during January and February of 2008.

- Surface Domain

(i) PEO IWS

- The following actions have been taken related to the SHARE repository and in re-using assets and artifacts during the period of January through March 2008:[1]
  - Updated the SHARE license agreements based on user experience;
  - Designed, implemented and installed automated metadata description sheet on SHARE to facilitate future search capabilities;
  - Evaluated a commercial scanning tool, PowerGrep to reduce time auditing assets (tool is being installed in near future for use by audit team);
  - A total of 63 assets (containing over 18,018 artifacts) have been made available in SHARE;
  - Processed 35 registration applications (January - March 2008);
  - Total registrants to date = 200 government / industry;
  - Conducted three audits on asset submissions (two in process);
  - Processed two requests for assets (January - March 2008);
  - Received 25 requests for assets (January – March 2008);
  - Total requests for SHARE assets to date = 260; and
  - Total number of assets submitted for availability on SHARE = three.
- PMS 500, PEO IWS 1A3 and the Office of Naval Research collaborated with PEO IWS-7 and submitted the Composite Combat Identification, Common Reasoning Algorithm into the SHARE repository process in January 2008 for future ship class consideration.
- PEO IWS-6 is currently processing 27 Common Network Interface Flight 0 Software design artifacts for inclusion into SHARE. Late in the 1st Quarter Fiscal Year 2008, PEO IWS 6 processed the check out of 28 Aegis software design specifications for Single Integrated Air Picture (SIAP) Systems Integrator / Design Agent (SIDA) use. Also processed the addition of 20 SIDA software design and code assets resulting from the use of the retrieved SHARE artifacts mentioned above. As a follow-on effort, also for SIAP SIDA use, PEO IWS-6 is processing check out request for Aegis Display Systems B5 spec.
- PEO IWS-6 has submitted the Cooperative Engagement Capability (CEC) Baseline 2.1 USG x-A software specifications into SHARE. This CEC baseline upgrade incorporates decoupling of the system hardware and software providing greater ease of upgrade and computer processing expansion.
- PEO IWS-7C (Training Systems Directorate) submitted applications and artifact documentation for the Multi-Mission Team Trainer system to SHARE during this period.

[1] **Artifact**: Products of a system/software development life cycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

(ii) PEO Ships

- The Zumwalt OSMP was completed and reviewed on March 18, 2008. This plan, prepared in accordance with the *Naval OA Contract Guidebook for Program Managers*, and delivered as a CDRL item, captures the architectural, technical, process and business practices in support of open systems development.

- Space Domain

  - Made the MUOS waveform available to other JTRS contractors within the JTRS Information Repository. The waveform software is approximately two million software lines of code.

- Submarine Domain

  - PEO SUBS is establishing a common Technical Information Center to support the in process procurements for Imaging, Tactical Control, Weapons Control, and Sonar Systems.
  - Developed web-based tools, located within the Contractor Integrated Technical Information System, to be used to support interoperability among subsystems within the Submarine, PEO IWS and C4I domains:
    - Web Integration and Test Tool (WITT), is based on the Open System Interface model for an expandable environment. Features include automated test procedures with built-in reuse; early Systems Test and Integration planning suite; universal interface debug tools; online test pass / fail recording with automated Verification and Validation; and Dashboard style, drill down technical and programmatic metrics tool.
    - Web Interface Product Tool (WIPT), works closely with the WITT to produce Group Requirements List, Group Data Dictionary, Interface Definition Language, and Interface Integration Database for subsystem integration to the tactical network.

- Marine Corps

  - Encouraged review of assets available in SHARE and NESI at DCGS-MC Systems Engineering Working Integrated Product Team and at Army / Marine Corps Command and Control / Situation Awareness Convergence study meeting sequences. System capabilities such as CAC2S and the emerging Marine Air Ground Task Force Command and Control systems rely in part on re-use of systems developed both by other Naval Enterprise Domains and by other military services.
  - Established initial contact between Product Group 10 / Total Force Information Technology Systems / Electronic Business Systems Team and the PEO IWS SHARE Team to discuss possible interface of a MARCORSYSCOM Information Technology system with SHARE and NESI.

- ASW CoI

  - The ASW CoI has recently employed the Advanced Interactive Management Technology Center facility at the Naval Underwater Warfare Center to publish Increment One of the ASW CoI Data Model via web services. USW DSS has already placed artifacts on this website.

g. Components Reused to Reduce Cycle Time, Risk and Increase Affordability

- C4I Domain

  - Reused 128k lines of Navy-owned code and 25k lines of code from a U.S. Army program to deliver two new capabilities for the Automated Digital Network System.

- Surface Domain

(i) Expeditionary Warfare

  - The LCS's Mission Package Computing Environment (MPCE), being developed by PMS 420, is an open system in accordance with the IWS Objective Architecture. The MPCE utilizes a modular design with standard interfaces that enables integration with two distinct combat systems. The ASW Mission Package utilizes 85 percent imported code from existing sources.
  - PEO LMW (PMS 495) has selected the expendable Archerfish mine neutralizer as the common neutralizer for both airborne and surface mine neutralization applications.
  - PEO LMW (PMS 480) designed the Shipboard Protection System (SPS) with an OA integration capability allowing it to more easily integrate peripheral system components (such as Acoustic Hailing Device and Electro-Optical / Infrared or EO/IR).
  - PEO LMW (PMS 485) has implemented OA principles in developing the Integrated Common Processor (ICP) for the Integrated Undersea Surveillance System. ICP has capitalized on much of the effort undertaken by the Navy's A-RCI program. ICP and A-RCI share common software modules, hardware components, acoustic / geographic displays and system architecture. OA relies on well defined interfaces to allow for more efficient, timely and economic integration of improved / increased capability. Common acoustic / geographic displays assist in user / operator training efficiency.

(ii) PEO IWS and PEO Ships

  - During this reporting period, the Zumwalt program's use of an OA design approach has driven successful completion of the fourth of six major software releases. This software release was 1.03 million lines of code and was developed on schedule and within cost goals in 31 months.
  - Reuse of Zumwalt OA software products will provide cost saving opportunities for future shipbuilding and ship modernization. Zumwalt and CVN fleet OA alignment is ongoing. Total Ship Computing Environment Infrastructure services were incorporated into SSDS OA baseline for 2008 fielding aboard CVN 68.

- Submarine Domain

  - A-RCI, Tactical Control, and Weapons Control Subsystems all reuse software from one TI Baseline to another. Furthermore, these programs all reuse APB-07 software developed by PEO IWS 5 to support APBs. Once the subsystems fully integrate capability improvements into their respective baselines, the decision is made as to how the improvements will be applied to the Virginia Class with nearly 100 percent software reuse. Hardware within Submarine Combat Systems is common among subsystems at the TI level, further reducing life cycle costs.
  - TI-08 capabilities are designed for commonality. Examples of commonality within the TI-08 design are AIS, On-Board Tactical Trainer, Acoustic Intercept and Ranging and Embedded National Tactical Receiver. Each of these will be installed on multiple classes of submarines.
  - TI-08 baseline hardware was established giving a 2X increase in processing power. This baseline is used commonly amongst Integrated Submarine Imaging System, Acoustics, Tactical Control, Weapons Control, and IWS 5 Developmental assets and is further applied to Virginia Class and the Royal Australian Navy's Collins Class Submarine Combat System Equipment as appropriate.

- ASW CoI

  - Working with Joint Command and Control and Net-Enabled Command Capability to reuse Universal Core, Common Core and Track components in ASW Command and Control.
  - The USW DSS, which is the Command and Control component for the ASW CoI, is modifying software to improve operability and software portability. These modifications will make use of Universal and Command and Control Common Core components as they become available. The program is conducting Limited Technical Experiments to verify that interoperability and portability goals are being met while still providing the required functionality.
  - Mid-frequency active sonar capability developed by the surface combatant community is being reused on submarine sonar.

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs

a. Systems Engineering Collaboration

- Submitted Fiscal Year 2007 OA/FORCEnet experiment artifacts to the Navy Collaborative Engineering Environment; in the process of submitting artifacts to SHARE auditors for preliminary intellectual property scans prior to submission into SHARE along with a draft copy of the report.
- Issued the Fiscal Year 2007 OA/FORCEnet Experiment Results on common data modeling efforts. The ASW data standardization working group is leveraging the results to build the

ASW extension to the Joint Track Manager / CANES data model.

- The Space Domain introduced Software Reprogrammable Payload engineering as a potential candidate for collaboration across domains.

b. Standardization of Processes

- NAVAIR began definition of a process to define the NOA CDRL for OSMPs. A Lean Six-Sigma project is being conducted to define a process that supports Industry, OPNAV, PEOs and Program Managers that will be completed later this year.

c. Quick wins / Near-term proofs of concept

- Air Domain
    - Network Centric Waveform – A small business, Twin Oaks Computing Company, Inc. developed and demonstrated a software device driver (VMNet) that enables OA data transfer over common backplanes (VME and cPCI). It also supports Remote Direct Memory Access (RDMA). The benefits of this SBIR contract include:
        - Open Standards Based Architecture (Open Fabrics),
        - High Performance Solution,
        - Clear upgrade path as hardware options increase (e.g., RDMA Capabilities),
        - Hardware neutral solution - applications port easily,
        - Supports Data Distribution Service over RDMA,
        - Utilizes backplane data transport, leaving Ethernet bandwidth available, and
        - RDMA requires no reassembly; buffer is pre-allocated with known size, zero-copy; data is placed directly in consumer's memory buffer.

- C4I Domain
    - ISNS Common Core Services will field a collection of open source software packages on USS Lincoln Strike Group platforms and the U.S. Pacific Fleet's Maritime Headquarters / Maritime Operations Center in support of the Early Adopters initiative in November 2008.
    - The Early Adopter process has succeeded in virtualizating the following systems in support of the rapid capability insertion process:
        - Navy Information / Application Product Suite;
        - Theater Medical Information Program-Maritime;
        - Composable FORCEnet;
        - AIS; and,
        - Defense Message System.

- Surface Domain

(i) Expeditionary Warfare

- PEO LMW (PMS 480) is including rigorous application of OA principles in Ship Protection System software design permitting technology introduction in edge devices

(EO/IR, gun mount, acoustic hailing device, spotlight, etc.) PMS 480 is utilizing OA Subject Matter Experts from Naval Surface Warfare Center (NSWC) Dahlgren Division to validate the "openness" of the SPS system design.

(ii) PEO IWS

- Developing Periscope Detection Radar using a SBIR firm (3Phoenix). Benefits:
  - Reduced development time to 25 months for Radar Data Processor, and
  - Significantly reduced costs (by approximately $75 million).

d. <u>Performance Improvements in Development or Fielded Systems</u>

- Air Domain
  - Initial products defining an OA for Light Aircraft Survivability (EW Systems) have been drafted. The products include a DoDAF Integrated Architecture and Interface Control Documents for the EW System components.
  - E-2C OA Computing Mission Computer Processor Functional Configuration Items (FCI). Code Conversion metrics:
    - 2,200 Software Lines of Code (SLOC) of Ada code converted to C++,
    - 1,861 Engineering Hours to convert,
    - ~$200k to convert,
    - 0.85 hrs/SLOC, 1.18 SLOC/hr, 9.5 SLOC/day,
    - 1 defect discovered during system-level integration,
    - < 0.5 errors / Thousand SLOC (KSLOC), 4.8 sigma (99.95% yield).
  - E-2C OA Computing MUX N-BUS FCI. Code Conversion metrics:
    - 3,850 SLOC of Ada code converted to C++,
    - 1,467 Engineering Hours to convert,
    - ~$160k to convert,
    - 0.38 hrs/SLOC, 2.62 SLOC/hr, 20.9 SLOC/day,
    - 10 defects discovered during system-level integration, and
    - < 2.6 errors / KSLOC, 4.3 sigma (99.74% yield).
  - Automatic Identification System Functional Configuration Items (AIS FCI) Prototype Development. Code Conversion metrics:
    - 6,195 lines (SLOC) of Model code (2,250 new / 3,945 reuse),
    - 21,330 generated lines (GSLOC) of C++ code (~3.5x conversion factor),
    - 2,100 lines (SLOC) of new or modified Advanced Control Indicator Set (ACIS) code,
    - $224K Requirements Analysis / $157K Code Development (4,350 new SLOC),
    - 0.31 hrs/new SLOC, 3.26 SLOC/hr, 26.0 SLOC/day,
    - 2 defects discovered during system-level integration, and
    - 0.46 errors / KSLOC, 4.8 sigma (99.95% yield).

  The focus on up-front systems software engineering and requirements analysis created a higher degree of confidence in the product quality, while retaining a greater degree of flexibility to adapt to future requirements. The E2C AIS Prototype Development demonstrated that a new modeled software capability can be added to the legacy Operational

Flight Program. The result was an Integrated AIS Capability with reduced risk for Fiscal Year 2009 AIS efforts.

- C4I Domain

  - CANES is expected to have greatly increased computing power over today's shipboard networks, with the number of server instances in the vicinity of a 4:1 average virtualization ratio. This means that a CANES network server would be able to host up to four virtual Common PC Operating System Environment Servers that are installed on Naval ships today. Additionally, CANES is also expecting to have a greatly reduced footprint aboard the ship with the physical number of servers decreasing by about 20 percent and the number of server racks decreasing by at least 50 percent.
  - Functional capabilities for the ADNS have been increased by reusing Navy developed software (127,976 SLOC) to increase ADNS management of routers, switches, packet shapers and servers; additionally, 25,422 SLOC of Army-developed software was reused to increase the system's ability to manage network Quality of Service.

- Surface Domain

(i) Expeditionary Warfare

  - PEO LMW is developing requirements to establish a Life Cycle Sustainment facility and is also establishing processes for TIs.

- Submarine Domain

  - As part of the APB-07 upgrade which completed lab testing, PEO SUBS and PEO IWS conducted interviews with submarine Commanding Officers and watch teams to determine what they required to better operate their ships in the contact-rich littoral waters. Those interviews resulted in three primary improvements: the Interactive Battlespace Awareness Layout Display that brings together sonar, visual, and electronic contacts on to one screen; the Rapid Periscope Observation Support that is expected to provide for quick periscope observation to maintain a fast pace of contacts; and the Common Passive Broadband with Improved Parameter Evaluation Plot that ensures that a submarine's command, fire control, and sonar see the same first data from which they base their contributions to the safe operation of their ship.
  - PEO SUBS has successfully integrated ten APBs in A-RCI and eight into the Tactical Control Subsystem and shared these same capabilities with the Collins Class and Virginia Class programs as applicable.
  - TI-06 will field the following capabilities this year.
    - Weapons Control upgrades provide improved targeting and strike capability. Provide Joint Interoperability for the strike mission.
    - Tactical Control upgrades provide the war fighter with improved contact management / decision making, and situational awareness. Benefits include a 10 to 25 percent improvement in targeting containment accuracy and a 1 to 50 percent reduction in track break. Sonar and Tactical Control displays will be

consolidated and simplified to support reduction of footprint and manning. Begin formulation in support of track manager / solution concepts.

- Sonar improvements provide the war fighter with expanded search capability through enhanced passive signal processing and track algorithm capabilities. A new active processing string based on the current Surface Ship processing will be assessed for post-APB06 applicability within the BQQ-10 sonar to increase commonality with the Surface Ship applications. Digital acoustic communication, part of the baseline processing string will be enhanced through the application of a new Tactical Decision Aid.
- Information Assurance and data distribution format changes will be implemented to enable the ability to operate with other military forces in a joint mission environment.
- Electronic Support Measures improvements provide the war fighter with an extended reach capability to understand the electromagnetic environment beyond the range of the platform's organic sensors, enhancing the platform's situational awareness. The platform will also gain the ability to detect and identify low power high threat radar that current systems are not capable of handling. The addition of the Improved Communications Acquisition and Direction Finding system provides the platform with the capability to take tactical advantage of modern communications signals.

- ASW CoI
  - The USW DSS software modifications described above will facilitate software upgrades and tech refreshes, with the intent to improve operational capability and reduce detect to engage timelines.

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles

a. Training

- DAU OA Training Module – 36 students completed module in 2nd Quarter of Fiscal Year 2008. As of April 7, 2008, 588 students have completed the module since its inception in August 2006 of which 206 students have completed the course in Fiscal Year 2008. 40 students are presently enrolled.
- C4I Domain held a two-day OA workshop (March 5-6, 2008) and trained 12 senior managers on OA.
- PEO IWS conducted a training session on OA for NSWC Panama City, attended by approximately 100 individuals. This session also covered the contents of the OA Contract Guidebook. Additionally, IWS-7B representatives individually met with a broad range of project management teams to discuss how they were incorporating OA principles into their efforts. There are a number of "lessons learned" and other feedback that will be very useful when provided to the Naval Enterprise during the revision of the *OA Contract Guidebook for Program Managers* in July 2008.

b. Communications / Outreach

- OA Website - Received 27,556 hits (https://acc.dau.mil/oa) in the 2nd Quarter of Fiscal Year 2008, bringing the total number of hits for Fiscal Year 2008 to 140,672.
- Conferences
  - Air Domain - participated in The Technical Cooperation Program in London, England, held on January 22-25, 2008. The five coalition nations that participated were: U.S., England, Australia, Canada and New Zealand. The Aviation's OA collaboration work is being conducted under the Aerospace Systems', Airborne Mission Systems Technical Panel (AMS-TP). The AMS-TP supports three key technical areas (KTA) supporting numerous working programs-projects. The OA efforts will be conducted under the KTA titled as 'Technology for obsolescence avoidance, sustainment and enhancement of Airborne Mission Systems.'
  - IWS Domain presented the Naval OA efforts to industry and Navy representatives at three conferences in January (Surface Navy Association Conference, DoN Information Management / Information Technology (IM/IT) Conference, and the Armed Forces Communications Electronics Association West Conference).
- Briefings
  - C4I Domain briefed delegates from the French Navy and the Japanese Maritime Self Defense Force on Naval OA and how PEO C4I is using Naval OA as a top-level approach for the technical and business considerations across all domain programs.
- Publications
  - Air Domain – The March 2008 *Journal of Electronic Defense* provides an article titled "PLUG 'N' PROTECT EW" which describes PEO (T)'s approach to the development of an OA for Navy and Marine Corps EW self-protection systems. The approach which features the use of standardized Interface Control Documents is to enable the mix and match of individual EW system components without the significant integration challenges typically encountered. The objectives of the EW OA are to increase competition, reduce costs, and increase effectiveness in a timely manner.

III. Summary

The Second NOA Report to Congress provides a NOA program accomplishment update since the First Report was submitted to Congress in February 2008, focusing on the period of January 1 to March 31, 2008. The Naval Enterprise continues to make significant progress in the implementation of OA. Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements at reduced costs. Continued progress is anticipated next quarter and will be reported in subsequent Quarterly Reports to Congress.

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

APR 0 3 2008

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE NAVY FOR INTEGRATED WARFARE SYSTEMS

SUBJECT: Advanced Cruise Missile Threat Test Assets Report to Congress

The TRMC concurs with comment on the Navy's Advanced Cruise Missile Threat Test Assets Report to Congress. While I do not object to any specific report finding, I do encourage you to identify and program, as soon as possible, the funding required to procure the advanced threat target test capabilities identified in the report. The adequate funding of these test capabilities will be an item of interest in future budget certification. My point of contact for this effort is Mr. Gerry Christeson. He can be reached at (703) 601-5259.

Dr. John B. Foulkes
Director
Test Resource Management Center

OFFICE OF THE SECRETARY OF DEFENSE
1700 DEFENSE PENTAGON
WASHINGTON, DC 20301-1700

OPERATIONAL TEST
AND EVALUATION

APR 07 2008

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE NAVY
FOR INTEGRATED COMBAT SYSTEMS

SUBJECT: Navy Report to Congress on Advanced Cruise Missile Threat Test Assets

As clarified by the attached comments, DOT&E endorses the Navy report directed by the FY 2008 Senate Armed Services Committee Report 110-77. DOT&E has several areas of concern with the Navy's portrayal of the advanced cruise missile threat targets in the subject document (also attached). Our comments highlight these areas where current and planned aerial target efforts may not provide adequate representation of threats to the point that DOT&E will not be able to approve operational test plans for specific programs.

While our comments highlight deficiencies in specific threat categories (i.e., anti-ship warhead vehicles delivered by ballistic missiles, subsonic sea-skimmers (e.g., Exocet and Switchblade), supersonic sea-skimmers (e.g., Sunburn), supersonic divers (e.g., Krypton), and multi-stage supersonics (e.g., Sizzler)), there is one issue that cuts across all these categories -- the Navy's move toward highly integrated combat systems. These systems take inputs from multiple sensors, both active and passive, in multiple bands to form a composite tactical picture. The combat system uses this information to decide on when and with what weapon to engage the threat to maximize success. Before combat systems were so highly integrated, a target needed to be threat representative in limited areas (e.g., speed, maneuvers, etc). Integrated combat systems assimilate all detectable threat parameters to recognize the specific threat and then choose the optimal weapon and the optimal launch time to counter it. For realistic OT&E of these advanced combat systems, an unintended consequence is that seemingly insignificant differences between the actual threats and the test targets during testing may result in different responses by the combat system decision logic. Such near-exactitude criteria may render aerial targets that are now acceptably threat-representative to become inadequate for operational testing of these highly integrated combat systems. Target developments must therefore focus on representing the threat to the point where targets are threat replicative in order to adequately operationally test these complex combat systems that are already installed on selected ships in amphibious and aircraft carrier ship classes and will be installed in future ship classes.

Please ensure that this memo and attachments are included in the package that is forwarded to Congress. My action officer for this effort is Mr. A. Kristovich, 703-681-5628, andy.kristovich@osd.mil.

Thomas B. Blann
Deputy Director
Naval Warfare

Attachments:
As stated.

cc:
DTRMC
CNO (N091, N433, N86)
COMOPTEVFOR
PEO (IWS)

DOT&E DETAILED ENDORSEMENT ON THE NAVY REPORT TO CONGRESS ON ADVANCED CRUISE MISSILE THREAT TEST ASSETS

ANTI-SHIP BALLISTIC MISSILE TARGETS

The Chinese are developing ballistic missiles with anti-ship vehicle payloads. While the ballistic portion of this threat's flight would most likely be a target for ballistic missile defense systems, the terminal portion would likely be countered with shipboard defense systems. The Navy has no plans to develop a target to represent this threat. Lack of this target will prevent realistic operational testing of air defense capabilities of all major surface combatants in the Navy.

SUBSONIC TARGETS

BQM-34 - The BQM-34, which was introduced in the 1960s, has been out of production for ten years. Due to shortcomings in signature, physical size, speed, and maneuverability, this target does not adequately represent any of the current anti-ship cruise missile (ASCM) threats. However, there is a need for a subsonic target that has the ability to carry threat representative ASCM seekers and credibly represent active radar homing ASCMs to shipboard electronic warfare (EW) and passive defense (i.e. soft-kill) systems. The Navy is modifying the BQM-34 for that purpose as it is the only subsonic target that has sufficient payload capacity. At present only one specific seeker is planned for use in this target – much less than the 10-15 different seeker variants that are used in actual ASCM threats. The development of this capability is experiencing delays that are jeopardizing completion of the initial operational test and evaluation of the LPD 17 prior to that ship's deployment. Moreover, there are multiple (>20) events requiring use of this target for adequate operational testing of EW systems in the LHA 6/ Littoral Combat Ship (LCS)/DDG 1000/CVN 21 ship classes beginning in the 2011 timeframe.

BQM-74 – The Navy's workhorse target for testing against subsonic ASCM threats is the BQM-74, which was originally introduced in 1968. Unfortunately, the current variant, the BQM-74E, has known shortcomings in signature, size, and speed that will prevent realistic operational testing of the Rolling Airframe Missile (RAM) Block 2 and future Ship Self-Defense System (SSDS) variants in addition to the LCS, LHA 6, and CVN 21 ship classes. Replacements for the BQM-74E have been pursued for several years without success. The Navy is working with the Johns Hopkins University to produce a study that will examine the performance requirements needed in a BQM-74E replacement target. We believe that this study, due for release in April 2008, has had insufficient input from the user community (i.e. DOT&E/COMOPTEVFOR/PEO IWS) such that a target derived from this study may not be adequate for operational testing of the above named systems. A further concern is the Navy's stated intent to use the results of this study as an input to formally document requirements for a new target (if the analysis indicates that the present target is inadequate) followed by development/procurement efforts. The lengthy timeline to complete those efforts jeopardizes the availability of this target in time for planned operational testing of the above systems. Moreover, until a new target is available, the Navy will be deploying combat systems that have not been adequately tested against realistic subsonic threats – the most prevalent category of ASCMs. We do, however, encourage the Navy to include a capability in the BQM-74 replacement to carry threat-representative active radar homing seekers used by most ASCMs. Representing ASCM radar emissions with high fidelity is a critical area for those combat systems that integrate an EW

suite with the air defense combat system. That is an unfulfilled gap in aerial targets that is minimally met today by using only one actual (expensive) anti-ship cruise missile asset.

SUPERSONIC SEA-SKIMMING TARGETS

The GQM-163A (COYOTE) is the Navy's only supersonic sea-skimming threat surrogate and was introduced in 2005 as the replacement for the MQM-8G (VANDAL) supersonic sea-skimming target (SSST). The Navy's statement that the "speed and flight termination of the COYOTE make it unsafe to fly in close proximity to manned ships" while correct, is not complete. Modifications to the COYOTE's flight termination system may in fact allow it to be safely flown in the proximity of manned ships but the Navy currently has no plans to pursue or study possible modifications for use in SSST scenarios. Such a modification is plausible because the VANDAL target was safely used against manned ships during the Standard Missile-2 Block IIIB, NATO SeaSparrow RIM-7R and ESSM missile operational tests. While the Navy's statement that testing of ESSM can be conducted on the Self Defense Test Ship (SDTS) under control of SSDS is correct, the SDTS (which cannot accommodate an Aegis combat system) cannot be used for adequate operational testing of ESSM as used in non-SSDS ships (i.e. Aegis destroyers). Additionally, the COYOTE target, like the BQM-74E, lacks a fully threat representative seeker emitter for testing the integration of shipboard soft-kill/hard-kill systems.

SUPERSONIC DIVING TARGETS

Supersonic diving targets are used to represent anti-radiation missiles. The last MA-31 target was used in December 2007, leaving the AQM-37, first produced in 1982 and currently out-of-production, as the Navy's only target to represent this threat. The Navy's statements that the AQM-37 "provides a rudimentary representation of current high diving ASCM threats" and that the "current inventory of 110 AQM-37s is sufficient to support planned testing through FY 2009" are partially correct. The AQM-37 was developed to represent the Cold War vintage high altitude supersonic threats during their cruise phase, not during their dive phase, thus, even "rudimentary" is a generous description of AQM-37 threat representation. Moreover, the Navy's effort to modify the COYOTE SSST to fulfill the need for a more threat realistic diving target is only funded for a demonstration (no production). The demonstration is currently scheduled for mid-FY 09. Furthermore, the Navy's statement that "Long term plans and requirements for high diving targets remain under consideration." is misleading since the Navy (and OSD) approved Capstone Enterprise Air Warfare Ship Self Defense Test and Evaluation Master Plan (TEMP) includes events requiring supersonic diving targets through FY 15. Therefore, we do not have a high degree of confidence that threat realistic targets will be available for adequate operational testing of the Rolling Airframe Missile (RAM) Block 2, future Ship Self-Defense System (SSDS) variants, the Aegis Modernization Program, the SM-6 Missile, and the LCS/LHA 6/DDG 1000/CVN 21 ship classes beginning in the 2011 timeframe.

MULTI-STAGE SUPERSONIC TARGETS

The MSST (previously known as Threat D target) defined a new category of threats that have unique impact on combat system performance. As the Navy has noted, the Threat D target study was completed in FY 07 and confirmed the importance of this new threat category. The Navy recently issued a MSST Request for Proposal which included incentives for contractors to develop a MSST in advance of the Navy's estimate of 2014 for an initial operational capability.

While the Navy has funded the development costs of this target, no MSST procurement funding has appeared in any budgetary documents. If a MSST contract is awarded (estimated award – July 2008) that accelerates development, inclusion of MSST procurement funding in the Navy POM 10 budget submission would be expected. This target is needed for adequate operational testing of the RAM Block 2, future SSDS variants, the Aegis Modernization Program, the SM-6 Missile, and the LCS/LHA 6/DDG 1000 ship classes beginning in the 2011 timeframe. The Navy statement that, "initial operational test and evaluation for these systems will be delayed until the MSST is available" is noteworthy since it follows that full rate production of missile systems may also be delayed until capability against the threat is demonstrated. By keeping the missile systems in limited production, if design deficiencies limit capability against Threat D, the design can be corrected before proceeding to full rate production.

TARGET INFRASTRUCTURE

The Navy's statement that the FY 09 budget request includes plans to establish operational capability of the GQM-163A supersonic target at the Pacific Missile Range Facility is correct but not complete. There are no funds programmed or requested to establish a capability to near simultaneously launch and control four GQM-163A targets as identified in the Standard Missile-6 and Capstone Enterprise Air Warfare Ship Self Defense TEMPs at PMRF or any other test range.

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

[illegible]

APR 14 2008

SECRET - Unclassified Upon Removal of Classified Appendix

W/ APPENDIX REMOVED

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

[redacted]

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

FEB 14 2008

SECRET - Unclassified Upon Removal of Classified Appendix

APPENDIX REMOVED

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

[redacted]

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

APR 14 2008

SECRET - Unclassified Upon Removal of Classified Appendix

APPENDIX REMOVED

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

[redacted]

[redacted]

THE ASSISTANT SECRETARY OF THE NAVY

[illegible]

[illegible] 14 2008

~~SECRET~~ Unclassified Upon Removal of Classified Appendix

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

APPENDIX REMOVED

Dear Mr. Chairman:

As directed by the Fiscal Year 2008 Senate Armed Services Committee Report 110-077, the enclosed report provides the Department of the Navy's plans to develop test resources to adequately test naval assets against advanced cruise missile threats.

The report includes a classified analysis of the current and projected future threat, required funding and schedule for the development and acquisition of relevant test resources, and impacts on test schedules and adequacy of testing for specific relevant Navy systems.

This report was prepared in coordination with the Director of Operational Test and Evaluation and the Test Resource Management Center. A copy of the endorsement and additional concerns from each organization is enclosed.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

John S. Thackrah
Acting

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

[redacted]

REPORT TO CONGRESS

Next Generation Enterprise Network (NGEN)

Prepared by:

The Secretary of the Navy

The Under Secretary of Defense
(Acquisition, Technology and Logistics)

The Assistant Secretary of Defense
(Networks and Information Integration)

The Director, Operational Test and Evaluation

April 3, 2008

FOR OFFICIAL USE ONLY
(This may contain information exempt from mandatory
disclosure under the Freedom of Information Act (FOIA))

Report to Congress on the Department of the Navy
Next Generation Enterprise Network (NGEN)

Submitted by:

John J. Young, Jr.
Under Secretary of Defense
Acquisition, Technology and Logistics

3 APRIL 2008
Date

John G. Grimes
Assistant Secretary of Defense for
Networks and Information Integration
and DoD Chief Information Officer

21 March 2008
Date

Dr. Charles E. McQueary
Director, Operational Test and
Evaluation

25 MARCH 2008
Date

John S. Thackrah
ASN (RD&A), Acting

28 MARCH 2008
Date

Robert Carey
Department of the Navy
Chief Information Officer

28 Mar 2008
Date

Background

The FY 2008 National Defense Authorization Act Senate Armed Services Committee Report (110-77) directed "the Secretary of the Navy, jointly with the Assistant Secretary of Defense for Networks and Information Integration/Department of Defense Chief Information Officer; the Under Secretary of Defense for Acquisition, Technology, and Logistics; and the Director of Operational Test and Evaluation; to produce a report for Congress describing the plans and schedule, including planned funding for the NGEN initiative. The report should include a description of NGEN's compliance with the policies and architectures of the Business Transformation Agency, testing plans and procedures, and review and coordination mechanisms with all relevant oversight agencies. The report should be delivered to the congressional defense committees no later than March 1, 2008." Each of the Department of Defense elements called out in the committee report - the Secretary of the Navy; the Under Secretary of Defense for Acquisition, Technology; and Logistics the Assistant Secretary of Defense for Networks and Information Integration/Department of Defense Chief Information Officer; and the Director of Operational Test and Evaluation - are working together to ensure the NGEN effort is on a success oriented path, and have collaborated in the development of this report. Other OSD organizations will be joining the team as their specific skills and expertise are needed.

This report provides the actions taken to date, the planned actions and timeline for the NGEN solicitation and award, and a description of the review and coordination mechanisms to be followed.

Discussion

The Department of the Navy (DON) Next Generation Enterprise Network (NGEN) will be, for the Continental United States (CONUS) and Outside Continental United States (OCONUS), the Department's future vision of a comprehensive Naval Networking Environment (NNE) for the Navy and Marine Corps. Because of the near-term need to replace the Navy Marine Corps Intranet (NMCI) contract and the diversity and complexity of OCONUS support agreements, the NGEN/NNE capability will evolve over time through an incremental block upgrade approach. NGEN Block 1 will be the follow-on contract(s) to replace the NMCI contract and provide the DON with the basic communications, computing infrastructure and core services.

NGEN Block 1 will be the first step in achieving the NNE vision, which will transform the existing enterprise and legacy networks of the Department into a secure, fully interoperable and integrated world-wide environment (CONUS and OCONUS, ashore and afloat), where data and services are ubiquitously available to DON users no matter their physical location. The NNE capability will evolve over time through multiple, complementary acquisitions.

NGEN Block 1 will be the follow-on to NMCI and a key enabler for the warfighting (command and control functions) and warfighting support (business) operations of the DON ashore. NGEN Block 1 must be operational on October 1, 2010.

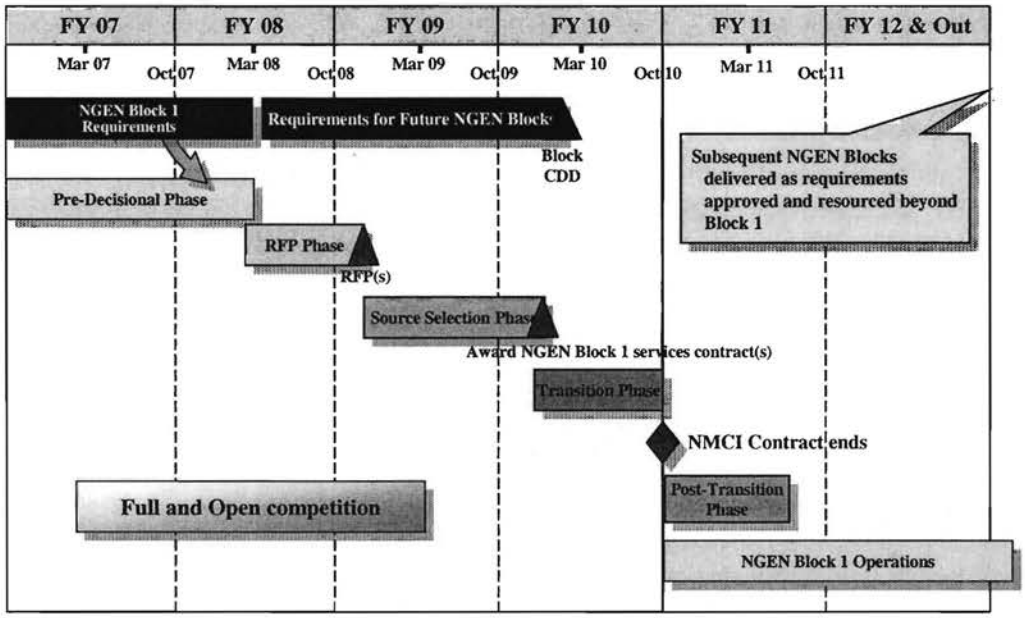
Plans and schedule

Preparation for NGEN has been a comprehensive effort, conducted with the participation of a broad spectrum of DON commands, including representation from the operational, acquisition, readiness and logistics, engineering, program management and network operator communities. Representatives from the Office of the Secretary of Defense (OSD), the Assistant Secretary of Defense (Networks and Information Integration) (ASD (NII)/DOD CIO), the Joint community, the Director, Operational Test and Evaluation (DOT&E) and the Defense Information Systems Agency (DISA) have participated in the process as well, either through the DON Deputy Chief Information Officer (CIO) Navy/DON Deputy CIO Marine Corps-led Requirements Task Force or a Program Office Integrated Product Team (IPT). DON leadership has been actively engaged throughout, primarily through the DON Information Executive Committee (IEC), the senior information management/information technology (IM/IT) forum for the DON. The Secretary of the Navy has been personally involved, receiving frequent briefings on the progress of efforts to date and providing direction as necessary.

Planning efforts for NGEN have proceeded in three primary areas. Requirements definition has been led by the DON Deputy CIO Navy/DON Deputy CIO Marine Corps Requirements Task Force. An NNE Concept of Operations effort has been led by the DON CIO. Acquisition planning has been led by the NGEN Program Office. These efforts have been guided by several high-level tenets:

- The NMCI contract expires on September 30, 2010; any follow-on to the functionality provided by NMCI must be operational by that date.
- NGEN may employ a Block Upgrade strategy to achieve the ultimate operational capability eventually envisioned by the DON's NNE strategy.
- The Office of the Secretary of Defense (OSD) oversight of the effort will be spearheaded by the Assistant Secretary of Defense (Network Integration and Information) (ASD (NII)/DOD CIO) and the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) through an NGEN Oversight Team.
- The transition from NMCI to NGEN Block 1 "do no harm"; i.e., the provision of critical services to users cannot be put at risk by the transition from NMCI.

The figure below represents the notional planning sequence of events for the NGEN acquisition.



The requirements definition effort began in May 2006 with a letter from the Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN (RD&A)) to the DON CIO, requesting that the process of defining requirements for the follow-on to NMCI be established. In October 2006 the scope of these efforts was expanded, and the Center for Naval Analysis was tasked by DON to lead an effort to identify the overarching capabilities that NGEN would need to provide in the 2010 to 2020 time frame, as well as to identify feasible material solutions to provide those capabilities. This effort subsequently became part of the DON Deputy CIO Navy/DON Deputy CIO Marine Corps-led Requirements Task Force charged with producing the comprehensive NGEN Requirements document.

A survey of a broad range of users of current DON networks, which included representation from warfighting and business commands and organizations in the DON, DoD, and Joint communities, was conducted to determine these required capabilities. A review of top-level DoD and Joint documentation related to requirements for operating in a network-centric environment followed. The Task Force assessed gaps relative to both the performance of today's networks and to the projected performance of NMCI in 2010, at the point that Block 1 of NGEN must be operational. This projected performance, combined with mandated Office of Management and Budget and DoD requirements, as well as critical improved capabilities for network reliability, adaptability, security, governance and support to the warfighter, formed the fiscally unconstrained baseline requirement for NGEN Block 1.

Concurrently, the DON CIO led an effort to define the vision, scope, strategy, and concept of operations for the DON NNE, a capability to be realized in the 2016 timeframe. As the planning for NGEN Block 1 progresses, the NNE~2016 effort will continue to analyze the needs, requirements and funding for future Block Upgrades that will bring NGEN closer to fully achieving NNE~2016 objectives.

An NGEN Program Office (PM NGEN) was established in July, 2007 under the Program Executive Officer – Enterprise Information Systems (PEO-EIS). A Program Manager (PM) and Deputy PM were assigned; staffing was initiated and work begun on the pre-decisional phase to develop an Acquisition Strategy, Acquisition Plan, Acquisition Program Baseline, and list of required technical documents. Four IPTs - Network Operations, Architecture/Engineering, Program Management and Transition - were established to analyze the requirements, develop strategies and plans and prepare the solicitation materials for NGEN Block 1. Membership for the IPTs was drawn from across a broad spectrum of DON commands, including representation from the acquisition, readiness and logistics, engineering, program management, user and network operator communities.

The process for developing the NGEN solicitation(s) from the requirements is event-driven, vice schedule-driven. At the conclusion of the requirements definition phase and approval of the requirements document by DON leadership, the PM NGEN will begin an assessment of the requirements based on environmental, resource/funding, technology, statutory and regulatory constraints. This assessment will define the expectations of the solicitation(s). It will also allow for a selection of preferred system requirements for NGEN Block 1 consideration. A System Requirements Review will then be conducted, chaired by the PM, to include headquarters, Fleet and Marine Forces, network operators, and other user participation. This review will ascertain the progress in defining system technical requirements and determine the direction and progress of the systems engineering effort.

The System Specification will then be developed. This will define the required system functions, performance parameters, all other requirements and constraints, and the sub-services to be allocated to each service function. The DON IEC will conduct a review of the System Baseline, in order to confirm that the recommended solution will meet the requirements within cost, schedule, performance and risk parameters. This is currently under assessment with other approaches, with expected completion in April 2008. A review will then be scheduled with ASN (RD&A) to present the NGEN Block 1 Service Baseline, along with the Acquisition Strategy, Acquisition Plan, Acquisition Program Baseline, and other required programmatic documents. The DON and OSD leadership will work closely together to develop the required programmatic documentation.

The Request for Proposal (RFP) Development phase will then start. DON will notify ASD (NII)/DOD CIO and the Director, Defense Procurement and Acquisition Policy (OUSD (AT&L) DPAP) of its intent to issue the NGEN solicitation. A decision

authority review, chaired by ASD (NII)/DOD CIO and Under Secretary of Defense (Acquisition, Technology and Logistics) USD (AT&L), will be scheduled to present the proposed acquisition strategy; this review is planned for September 2008. This meeting will include representation from other elements of DoD, to include the Joint Staff, PA&E, DISA and DOT&E. The desired outcome will be approval of the Acquisition Strategy document. Approval of the acquisition strategy will permit DON's issuance of the RFP(s) for NGEN Block 1. Release of the NGEN RFP(s) is planned for November 2008.

It is anticipated that a full and open competitive source selection approach will be used. The NGEN Block 1 contract(s) will be awarded on the basis of Best Value to the Government, with the evaluation factors nominally expected to include Technical Approach, Management Approach, Past Performance and Cost. The Source Selection Authority will then make a determination and the Source Selection Report will be drafted for inclusion in the Post-Award Business Clearance Memorandum (BCM). The Chief of Naval Information will then announce the contract(s) award; this announcement is planned for January, 2010. Debriefs will be provided to unsuccessful offerors that request one. Any protests will be adjudicated through established procedures.

The transition (technical and process) from the current "as is" state of NMCI services to a new "to be" state of NGEN Block 1 services will involve multiple transition efforts. These could include transition from the incumbent NMCI service provider to the NGEN Block 1 service provider(s), a "phase in" by the NGEN Block 1 service provider(s) from the incumbent NMCI service provider, or a transition from the incumbent NMCI service provider to the Government for those services that might be determined to be Government provided services. The over-riding principle for the transition strategy will be to "do no harm", meaning to effect as seamless a transition/phase-in as possible while changing from the existing service provider model to another.

The transition will conclude on October 1, 2010, with the expiration of the NMCI contract and the Initial Operational Capability of NGEN Block 1. Steady state NGEN Block 1 operations will then commence as per the new service provider model.

Planned funding

Initial funding for the transition to NGEN is programmed within NMCI funding lines. It is anticipated that funding for NGEN, similar to NMCI, will utilize a centralized approach for program management, incentives and communications circuits. The funding approach for seat and/or other information services will ultimately be dependent on strategies decided upon for NGEN Block 1 acquisition, contracting and operations.

Development of cost estimates for NGEN Block 1 is ongoing through the process outlined above and will be included in the President's Budget for Fiscal Year 2010.

Compliance with the policies and architectures of the Business Transformation Agency

NGEN Block 1 will be the DON's ashore IT infrastructure in CONUS and at select OCONUS locations. It will provide the transport infrastructure required by the business and warfighting-support systems of the Department.

As infrastructure, NGEN Block 1 will not perform any specific DoD business process; therefore, it will not be governed by the Department's Business Mission Area (BMA). Likewise, there are no investment criteria applicable to NGEN Block 1 in the Business Enterprise Architecture, which is managed by the Defense Business Transformation Agency and focuses on business functions such as financial management, personnel management and logistics. As future NGEN blocks are developed, applicability of the BMA will be considered.

The Department's IT infrastructure is governed at the Enterprise level by the DoD CIO, which has investment review and compliance criteria analogous, yet not identical, to that of the BMA. NGEN Block 1, and all subsequent blocks, will be compliant with the policies, plans, architecture, procedures and certification requirements of the Defense Information Enterprise Architecture (DIEA), and will operate as an integral part of the GIG enterprise, including use of DISN services.

Testing plans and procedures

The DON will develop and implement an integrated plan for the test, assessment and evaluation of NGEN Block 1. Planning will be closely coordinated with Office of the Secretary of Defense staff, the Director, Operational Test and Evaluation (DOT&E), and DON testing commands. The details of this coordination will be documented by a chartered NGEN Test and Evaluation IPT. The objective will be to have a strategy in place to reflect the RFP(s).

Review and coordination mechanisms with all relevant oversight agencies

The ultimate oversight structure of the NGEN program has not been decided at this point, it is anticipated that it will be overseen as either a Major Defense Acquisition Program (MDAP)/Major Automated Information System (MAIS) or as an Acquisition of Services per the USD (AT&L) Acquisition of Services policy of October 2, 2006.

Formal coordination of NGEN planning began with OSD in February, 2007 with a meeting between ASN (RD&A) and ASD (NII)/DOD CIO. It was agreed that NGEN could be viewed as two parts – information transport service, and applications. It was also agreed that the Joint Capabilities Integration and Development System (JCIDS) process should govern fielding applications, but procurement of information transport services did not need to enter the JCIDS process. This view was subsequently confirmed to Navy by Joint Staff J8 in July, 2007.

Within DON, the DON IEC (comprised of DON CIO, DON Deputy CIO Navy, DON Deputy CIO Marine Corps, ASN (RD&A), and ASN Financial Management & Comptroller (FM&C)), through its primary and advisory members, is the senior DON information management / information technology (IM/IT) forum. The DON IEC is responsible for strategic direction, programmatic oversight, validation of requirements and capabilities and appropriate resourcing of NGEN.

An NGEN Oversight Team, under the leadership of the Department of Defense Chief Information Officer (DoD CIO), has been established to ensure coordination, effective test and evaluation planning, comprehensive architectural compliance, and continued and responsive oversight of the program. The Oversight Team includes representation from the USD (AT&L), ASD (NII)/DOD CIO, the Office of Program Analysis and Evaluation (PA&E), the Joint Staff, DOT&E, DISA and DON leadership.

To ensure that NGEN delivers required capabilities in compliance with the DIEA, DON is partnering with ASD NII/DOD CIO and both organizations are leveraging each other's ongoing enterprise architecture efforts led by DOD CIO. This collaborative effort will be supplemented by DOD CIO enterprise architecture compliance reviews of requirements and specification documents to ensure NGEN capabilities are delivered in accordance with DoD CIO Architectures, Standards, and policies.

Summary

NMCI was a revolutionary approach for obtaining data and video communications and computing capabilities within DON, acquiring IT capabilities via a fixed price, multi-year, performance-based services contract. Preparation for the transition to NGEN Block 1 as the follow-on to NMCI is well underway. DON has developed and implemented a robust, comprehensive planning process for NGEN. Funding will be planned for through the Planning, Programming, Budgeting, and Execution System. The requirement for NGEN's compliance with the policies and architectures of the BTA has been determined and agreed upon. Testing plans and procedures are being formulated to reflect the solicitation(s). Finally, an effective oversight framework is being established to ensure the successful transition from NMCI to NGEN Block 1.

Calendar No. 205

110TH CONGRESS *1st Session* | SENATE | REPORT 110–85

MILITARY CONSTRUCTION AND VETERANS AFFAIRS AND RELATED AGENCIES APPROPRIATION BILL, 2008

JUNE 18, 2007.—Ordered to be printed

Mr. REED, from the Committee on Appropriations, submitted the following

REPORT

[To accompany S. 1645]

The Committee on Appropriations reports the bill (S. 1645) making appropriations for military construction, the Department of Veterans Affairs, and related agencies for the fiscal year ending September 30, 2008, and for other purposes, reports favorably thereon and recommends that the bill do pass.

Amounts in new budget authority

Total of bill as reported to the Senate	$109,232,250,000
Amount of 2007 appropriations [1]	91,030,849,000
Amount of 2008 budget estimate	105,231,766,000
Bill as recommended to Senate compared to—	
Amount of 2007 appropriations [1]	+18,201,401,000
Amount of 2008 budget estimate	+74,000,484,000

[1] Excludes $6,595,560,000 in emergency supplemental funding provided in Public Law 110–28.

CONTENTS

	Page
Background:	
Purpose of the Bill	4
Comparative Statement	4
Compliance With Section 308 of the Budget Control Act	4
Committee Recommendation	5
Overview and Summary of the Bill:	
Investing in Infrastructure for our Troops and Their Families	5
Military Construction Funding	6
Keeping Our Commitment to America's Veterans	7
Transparency in Congressional Directives	7
Title I:	
Military Construction:	
Items of Special Interest:	
Hearings	9
Summary of Committee Recommendations	9
Reprogramming Guidelines	9
Variations in Scope	10
Operation and Maintenance Funds	10
Real Property Maintenance	11
Incremental Funding	11
"Grow the Force" Initiative	12
Global Defense Posture	12
Military Construction, Army	15
Military Construction, Navy and Marine Corps	16
Military Construction, Air Force	17
Military Construction, Defense-Wide	18
Military Construction, Reserve Components	19
North Atlantic Treaty Organization	21
Family Housing Overview	21
Family Housing Construction, Army	22
Family Housing Operation and Maintenance, Army	23
Family Housing Construction, Navy and Marine Corps	23
Family Housing Operation and Maintenance, Navy and Marine Corps	25
Family Housing Construction, Air Force	25
Family Housing Operation and Maintenance, Air Force	26
Family Housing Construction, Defense-Wide	27
Family Housing Operation and Maintenance, Defense-Wide	27
Family Housing Improvement Fund	27
Chemical Demilitarization Construction, Defense-Wide	28
Base Closure Account 1990	28
Base Closure Account 2005	29
Administrative Provisions	39
Title II:	
Department of Veterans Affairs	41
Items of Special Interest:	
Hearings	41
Summary of Committee Recommendation	41
Department Overview	41
Veterans Benefits Administration	44
Compensation and Pensions	45
Readjustment Benefits	46
Veterans Insurance and Indemnities	47
Veterans Housing Benefit Program Fund Program Account	47

Page

Title II—Continued
Department of Veterans Affairs—Continued
Veterans Benefits Administration—Continued
Vocational Rehabilitation Loans Program Account 48
Native American Veteran Housing Loan Program Account 48
Veterans Health Administration:
Medical Services 51
Medical Facilities 57
Medical and Prosthetic Research 58
Medical Care Cost Recovery Collections 60
Medical Care Collection Fund—Revenues Applied 60
National Cemetery Administration 60
Departmental Administration 61
General Operating Expenses 62
Office of the Inspector General 63
Construction, Major Projects 63
Construction, Minor Projects 65
Grants for Construction of State Extended Care Facilities 66
Grants for Construction of State Veterans Cemeteries 67
Information Technology Systems 68
Administrative Provisions 70
Title III:
Related Agencies:
American Battle Monuments Commission:
Salaries and Expenses 72
Foreign Currency Fluctuations 73
U.S. Court of Appeals for Veterans Claims: Salaries and Expenses 73
Department of Defense—Civil: Cemeterial Expenses, Army: Salaries and Expenses 74
Armed Forces Retirement Home 74
Administrative Provision 75
Title IV: General Provisions 76
Compliance With Paragraph 7, Rule XVI, of the Standing Rules of the Senate 77
Compliance With Paragraph 7(c), Rule XXVI of the Standing Rules of the Senate 78
Compliance With Paragraph 12, Rule XXVI of the Standing Rules of the Senate 78
Military construction project listing by location 80

BACKGROUND

PURPOSE OF THE BILL

The Military Construction, Veterans Affairs and Related Agencies appropriation bill provides necessary funding for the planning, design, construction, alteration, and improvement of military facilities worldwide, for both Active and Reserve forces. It also finances the cost of military family housing and the U.S. share of the NATO Security Investment Program. In addition, the bill provides funding to implement base closures and realignments authorized by law. The bill provides resources to the Department of Veterans Affairs for veterans benefits and health care. The bill also provides funding for U.S. cemeteries and battlefield monuments both in the United States and abroad; U.S. Court of Appeals for Veterans Claims; and Armed Forces Retirement Homes.

COMPARATIVE STATEMENT

The Committee recommends appropriations totaling $109,232,250,000 for fiscal year 2008 military construction, family housing, base closure, veterans health care and benefits, as well as related agencies. The table at the end of the report displays the Committee recommendation in comparison with the current fiscal year, and the President's fiscal year 2008 request.

COMPLIANCE WITH SECTION 308(a) OF THE BUDGET CONTROL ACT

Section 308(a) of the Budget and Impoundment Control Act of 1974 (Public Law 93–344) requires that the Committee include in its report a comparison of its recommendations with levels contained in the first concurrent resolution. Appropriate data are reflected below:

BUDGETARY IMPACT OF BILL

PREPARED IN CONSULTATION WITH THE CONGRESSIONAL BUDGET OFFICE PURSUANT TO SEC. 308(a), PUBLIC LAW 93–344, AS AMENDED

[In millions of dollars]

	Budget authority		Outlays	
	Committee allocation	Amount of bill	Committee allocation	Amount of bill
Comparison of amounts in the bill with Committee allocations to its subcommittees of amounts in the Budget Resolution for 2008: Subcommittee on Military Construction, Department of Veterans Affairs and Related Agencies:				
Mandatory	41,384	41,384	41,229	[1] 41,229
Discretionary	64,745	64,745	64,745	[1] 55,001
Projection of outlays associated with the recommendation:				
2008				[2] 81,616
2009				12,826
2010				8,107
2011				3,012
2012 and future years				1,911
Financial assistance to State and local governments for 2008	NA	977	NA	552

[1] Includes outlays from prior-year budget authority.
[2] Excludes outlays from prior-year budget authority.

NA: Not applicable.

COMMITTEE RECOMMENDATION

The Committee recommends new fiscal year 2008 appropriations of $109,232,250,000. This is $18,201,401,000 over the fiscal year 2007 enacted level, excluding supplemental funding, and $4,000,484,000 over the budget request. The basis for this recommendation is contained in the following "Overview and summary of the bill," and under the discussions pertaining to each individual appropriation. Complete project detail is provided in the tables at the end of the report.

OVERVIEW AND SUMMARY OF THE BILL

INVESTING IN INFRASTRUCTURE FOR OUR TROOPS AND THEIR FAMILIES

In a time of rapidly shifting global security conditions, the Defense Department is confronting major challenges on many fronts. These challenges include providing the necessary infrastructure to support our military and their families through a trying period of extended troop deployments, evolving missions, and major installation realignments. In the midst of conducting costly and protracted wars in Iraq and Afghanistan, the Department is engaged in a massive effort to transform the military into a force that is more agile and better placed to address emerging threats. This effort includes a far-reaching realignment of U.S. forces overseas in conjunction with the most sweeping U.S. base realignment and closure [BRAC] process in history. In addition to these formidable tasks, the Department is also gearing up to provide the infrastructure needed to accommodate a combined increase of 92,000 U.S. Army and Marine Corps personnel under the President's proposed "Grow the Force" initiative.

These challenges are placing great pressure on both the management and the execution of the Department's military construction program. The Committee is supportive of the Department's efforts to restructure its forces and realign its facilities, and has made a concerted effort to provide the necessary resources for essential infrastructure projects. However, the Committee is mindful of the complexity of the task facing the Department in terms of meeting the military construction goals it has set forth, and therefore expects the Department to provide strict management and oversight of the process and to consult closely with Congress on the progress of these various construction initiatives.

MILITARY CONSTRUCTION FUNDING

At $21,165,182,000, the President's fiscal year 2008 budget request for military construction and family housing is the largest request for these programs in recent history. However, it is important to note that slightly more than half of the request, nearly 53 percent, has been carved out for base realignment and closure activities [BRAC] and for the President's "Grow the Force" initiative to provide facilities needed for the planned increase in the size of the Army and the Marine Corps. The President's request for military construction associated with conventional mission requirements remains consistent with, and in some instances significantly below, the level of funding requested in fiscal year 2007, particularly in the case of the Reserve components. For example, the budget request for the Army National Guard is down 14.5 percent from the fiscal year 2007 appropriated amount. The Air National Guard request is down 32 percent, the Army Reserve is down 27.9 percent, and the Air Force Reserve reflects a 41 percent reduction. These reductions reflect a troubling multi-year downward trend in the Department's investment in infrastructure for the Reserve components.

While the Committee supports the BRAC and "Grow the Force" initiatives, it also believes that the Department must place equal emphasis on providing adequate funding to reduce the backlog in existing military construction requirements, and to provide essential mission and quality of life infrastructure for the regular military construction program. The Committee is particularly concerned at the precipitous decrease in military construction funding requested by the President for some of the Reserve components. For these reasons, the Committee has continued its practice of providing funding where indicated to supplement the regular military construction program, with particular attention to quality of life and mission essential facilities in both the Active and Reserve components. Because the military construction accounts are project based, with funding earmarked by the President for specific projects, the additional funding provided by the Committee is also project specific. All major construction projects funded through the military construction appropriations accounts are included in either the President's budget request or the Services' Future Years Defense Programs [FYDP] and are consistent with the criteria for additional funding for military construction projects in section 2856 of the National Defense Authorization Act for fiscal year 1995 (Public Law 103–337). In addition, more than 60 percent of the ad-

ditional projects included in the Committee's fiscal year 2008 recommendation were approved by the Senate and authorized in fiscal year 2007, but were not funded because the fiscal year 2007 military construction appropriations bill was not enacted into law.

KEEPING OUR COMMITMENT TO AMERICA'S VETERANS

America's veterans have served their country with courage and honor, and the Committee is dedicated to upholding the Nation's commitment to them. Unfortunately, the Department of Veterans Affairs [VA] has not always lived up to this commitment, resulting in catastrophic budget shortfalls in fiscal years 2005 and 2006. The Congress responded promptly, supplementing the VA's 2005 budget and the President's 2006 budget request with an addition of $2,952,000,000 to fully fund veterans health care. In the fiscal year 2007 supplemental funding bill, The U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (Public Law 110–28), the Congress provided an additional $1,788,578,000 for veterans health care, veterans benefits, and construction needs. This included $1,344,278,000 targeted primarily to the unique health care needs of veterans from the wars in Iraq and Afghanistan, and to ensuring that VA facilities are maintained at the highest level. The Committee believes strongly that the needs of all veterans are paramount, and that the emerging needs of veterans from Operation Enduring Freedom and Operation Iraqi Freedom [OEF/OIF] must be fully addressed so as not to usurp the resources needed for veterans of previous conflicts. The Committee therefore directs the VA to include in its budget calculations not only the current health care needs of all veterans but also the long range projected health care needs of OEF/OIF veterans, particularly those suffering from Post Traumatic Stress Disorder and Traumatic Brain Injury.

TRANSPARENCY IN CONGRESSIONAL DIRECTIVES

On January 18, 2007, the Senate passed S. 1, The Legislative Transparency and Accountability Act of 2007, by a vote of 96–2. While the Committee awaits final action on this legislation, the chairman and ranking member of the Committee issued interim requirements to ensure that the goals of S. 1 are in place for the appropriations bills for fiscal year 2008.

The Constitution vests in the Congress the power of the purse. The Committee believes strongly that Congress should make the decisions on how to allocate the people's money. In order to improve transparency and accountability in the process of approving earmarks (as defined in S. 1) in appropriations measures, each Committee report includes, for each earmark:

—(1) the name of the Member(s) making the request, and where appropriate, the President;

—(2) the name and location of the intended recipient or, if there is no specifically intended recipient, the intended location of the activity; and

—(3) the purpose of such earmark.

The term "congressional earmark" means a provision or report language included primarily at the request of a Senator, providing,

authorizing, or recommending a specific amount of discretionary budget authority, credit authority, or other spending authority for a contract, loan, loan guarantee, grant, loan authority, or other expenditure with or to an entity, or targeted to a specific state, locality or congressional district, other than through a statutory or administrative, formula-driven, or competitive award process.

For each earmark, a Member is required to provide a certification that neither the Member (nor his or her spouse) has a pecuniary interest in such earmark, consistent with Senate Rule XXXVII(4). Such certifications are available to the public at http://appropriations.senate.gov/senators.cfm or go to appropriations.senate.gov and click on "members".

TITLE I

MILITARY CONSTRUCTION

ITEMS OF SPECIAL INTEREST

HEARINGS

The Subcommittee on Military Construction and Veterans Affairs held two hearings related to the fiscal year 2008 Military Construction budget request. On March 22, 2007, the subcommittee heard testimony from representatives of the Department of Defense (the Department) and the United States Air Force concerning fiscal year 2008 budget priorities, the fiscal year 2007 global war on terror emergency supplemental request, and base realignment and closure [BRAC]. On April 19, 2007, the subcommittee held a hearing on the budget requests of the United States Army and the United States Navy concerning the fiscal year 2008 budget request, BRAC, and the President's "Grow the Force" initiative to provide infrastructure to accommodate planned increases in the size of the Army and Marine Corps.

SUMMARY OF COMMITTEE RECOMMENDATIONS

The budget request for fiscal year 2008 reflects an increase of $8,439,600,000 from the amount enacted in fiscal year 2007, excluding supplemental funds.

The Committee recommends $21,556,664,000. This is $391,482,000 above the budget request.

REPROGRAMMING GUIDELINES

The following reprogramming guidelines apply for all military construction and family housing projects. A project or account (including the sub-elements of an account) which has been specifically reduced by the Congress in acting on the budget request is considered to be a congressional interest item and as such, prior approval is required. Accordingly, no reprogrammings to an item specifically reduced below the threshold by the Congress are permitted.

The reprogramming criteria that apply to military construction projects (25 percent of the funded amount or $2,000,000 whichever is less) continue to apply to new housing construction projects and to improvements over $2,000,000. To provide the Services the flexibility to proceed with construction contracts without disruption or delay, the costs associated with environmental hazard remediation such as asbestos removal, radon abatement, lead-based paint removal or abatement, and any other legislated environmental hazard remediation may be excluded, provided that such remediation requirements could not be reasonably anticipated at the time of the budget submission. This exclusion applies to projects authorized in

this budget year, as well as projects authorized in prior years for which construction has not been completed.

Furthermore, in instances where prior approval to a reprogramming request for a project or account has been received from the Committee, the adjusted amount approved becomes the new base for any future increase or decrease via below-threshold reprogrammings (provided that the project or account is not a congressional interest item as defined above).

In addition to these guidelines, the Services are directed to adhere to the guidance for military construction reprogrammings and notifications, including the pertinent statutory authorities contained in DOD Financial Management Regulation 7000.14–R and relevant updates and policy memoranda.

VARIATIONS IN SCOPE

The Committee has noted a sharp increase in the use of 10 U.S.C. 2853 Authority to reduce the scope or provide additional funding for projects that have experienced cost or scope variations in excess of 25 percent of the approved military construction cost. In many cases, these notifications reflect dramatic increases over the projected cost, requiring either a major scope reduction or a reprogramming of funds from other projects. In some cases, the cost of projects for which funding has been authorized and appropriated has more than doubled due to higher than anticipated construction bids. This trend is troubling to the Committee and suggests that the Department's construction cost models do not adequately reflect current market conditions. In determining annual military construction appropriations, the Committee relies on the construction cost estimates provided in the Services' justification materials, including the detailed information contained in DD Form 1391, which accompanies each project. If this information is not reliable, the Committee cannot make informed decisions on the allocation of scarce military construction resources. The Committee, therefore, directs the Department to submit a consolidated report on cost and scope variations exceeding 25 percent for projects from each of the Services and the Defense Agencies funded in fiscal year 2007, and the source of funds, when applicable, used to supplement appropriated amounts for those projects. This report shall be submitted to the congressional defense committees no later than January 31, 2008.

OPERATION AND MAINTENANCE FUNDS

The Committee has noted a significant increase in the number of above-threshold notifications under 10 U.S.C. 2811 Authority for the use of "Operation and Maintenance" [O&M] funds to undertake extensive repairs and renovation of military facilities that could appropriately be funded through the military construction appropriation. The Committee reminds the Department that the intent of the $7,500,000 threshold for congressional notification of repair projects using O&M funds is to ensure that the O&M accounts are not being used as billpayers to inflate the Services' military construction budgets. The O&M accounts fund a wide range of "must-pay" operational requirements, whereas the military construction accounts are reserved solely for facilities. The Committee therefore

believes that in most cases, military construction funding is the appropriate source of funds for major construction efforts, including extensive repair and renovations, and urges the Services to budget accordingly. The Committee further directs the Department to provide consolidated quarterly reports to the congressional defense committees detailing all facility repair projects carried out during that quarter using over $750,000 in operation and maintenance funds. The reports shall be due no later than 30 days after the end of each fiscal-year quarter, with the initial report due by March 1, 2008.

REAL PROPERTY MAINTENANCE

The Committee recommends a continuation of the following general rules for repairing a facility under "Operation and Maintenance" account funding:

—Components of the facility may be repaired by replacement, and such replacement may be up to current standards or code.

—Interior arrangements and restorations may be included as repair, but additions, new facilities, and functional conversions must be performed as military construction projects.

—Such projects may be done concurrent with repair projects, as long as the final conjunctively funded project is a complete and usable facility.

—The appropriate Service Secretary shall submit a 21-day notification prior to carrying out any repair project with an estimated cost in excess of $7,500,000.

The Department is directed to continue to report on the real property maintenance backlog at all installations for which there is a requested construction project in future budget requests. This information is to be provided on the Form 1390. In addition, for all troop housing requests, the Form 1391 is to continue to show all real property maintenance conducted in the past 2 years and all future requirements for unaccompanied housing at that installation.

INCREMENTAL FUNDING

In general, the Committee supports full funding for military construction projects. However, it has been the practice of the Committee to provide incremental funding for certain large projects, to allow the Services to more efficiently allocate their limited military construction dollars among projects. Last year, the Office of Management and Budget [OMB] issued a directive that limits incremental funding to projects funded through the BRAC process. The Committee believes that incremental funding for all military construction projects should be considered on a case-by-case basis, as it has in the past, and not reserved solely for the BRAC program. The Committee intends to continue to exercise its constitutional prerogative to provide incremental funding where warranted and has recommended incremental funding of several high cost projects included in the President's fiscal year 2008 request. The Committee urges OMB to reconsider its prohibition on incremental funding and permit the Services to exercise their judgment as to the most efficient method to fund large projects, including the use of incremental funding.

"GROW THE FORCE" INITIATIVE

The Committee recommends the full budget request of $2,745,898,000 to implement the military construction program associated with the President's "Grow the Force" proposal to increase the end strength of the Army, including the National Guard, and the Marine Corps, by a total of 92,000 troops over 5 years. However, the Committee has provided this funding by individual project, identified in the State table at the end of this report, instead of as lump sum funding for the initiative as requested by the President.

The Committee supports the Department's efforts to provide sufficient facilities in a timely manner to accommodate an increase in Army, Guard, and Marine Corps troop levels. However, the Department has yet to provide a comprehensive plan detailing the scope and cost of the total military construction requirement associated with the initiative, nor has it provided an explanation of the criteria on which stationing decisions were based. The Committee notes that Public Law 110–28, the U.S. Troop Readiness, Veterans' Care, Katrina Recovery and Iraq Accountability Appropriations Act, 2007, directs the Secretary of Defense to provide a "Grow the Force" stationing plan to the Congress, and urges the Secretary to submit the plan without delay. Additionally, the Committee directs the Secretary to submit a separate report to the congressional defense committees by January 31, 2008, detailing how the military construction projects intended to support the "Grow the Force" initiative are being integrated into and coordinated with the military construction blueprint for the Global Defense Posture and BRAC 2005.

Because of the lack of detailed information provided by the Department to date, the Committee is concerned that the military construction program to support the initiative was drawn up in haste and may be subject to substantial change. For this reason, the Committee also directs that any above-threshold cost or scope variation, any cancellation of projects, or any transfer of funds among construction projects identified as part of the "Grow the Force" initiative, be subject to the standard reprogramming and notification requirements that apply to the regular military construction appropriation.

GLOBAL DEFENSE POSTURE

The Committee notes that the Department of Defense continues to advance its efforts to realign its overseas installation structure through the Global Defense Posture initiative. As part of this effort, the President has requested $1,174,418,000 in fiscal year 2008 for overseas military construction, approximately 10 percent of the regular military construction request (excluding BRAC and "Grow the Force" funding). The President's request for overseas military construction projects spans the globe from Europe to the Pacific and from Southwest Asia to Central America. The proposals include a massive infusion of funding for infrastructure to accommodate the planned buildup of U.S. forces in Guam, projects in Southwest Asia related to the wars in Iraq and Afghanistan, and operational facilities in Djibouti to establish a major new forward oper-

ating site for U.S. forces in Africa. Additionally, the Department continues to request funds for construction projects in Europe for the consolidation of U.S. bases in Germany and Italy. The realignment of bases in Europe must in turn be coordinated with construction in the United States of the facilities needed to accommodate the approximately 70,000 troops and 100,000 family members who will return to the United States as overseas bases are closed or consolidated.

The Committee supports the Department's efforts to reassess and realign its overseas installations to better respond to emerging security challenges. However, the Committee has concerns about the Department's ability to effectively manage and accomplish such an ambitious and overlapping global construction program within the limited time frame it has allotted to the effort.

For example, although the President is requesting $173,000,000 to construct facilities for the relocation of the Army's 173rd Airborne Brigade to Dal Molin, Italy, the Department has not yet achieved a final infrastructure agreement with the Government of Italy and has been unable to date to begin construction of projects at the base for which $306,500,000 was previously appropriated. In Djibouti, the Department is embarking on a major construction effort at Camp Lemonier in advance of standing up a planned African Command [AFRICOM], which will have jurisdiction over the installation. The Committee believes that the projects are predicated on possible future use instead of immediate need, and further believes that the new AFRICOM commander should have an opportunity to review the strategic requirement and master plan for permanent infrastructure in Djibouti before the Department executes the current plans. In Guam, the Committee recognizes the complexity of financing and coordinating the proposed development among the United States, the Government of Guam and the Government of Japan, and questions whether the local construction industry can keep pace with the sheer volume of projects planned for the island in fiscal year 2008.

The Committee is also concerned about the continued fidelity of the Department's global basing plan given the current fluidity of the global security environment and the uncertain tenure, number, and future mission requirements of U.S. troops in the Central Command Area of Responsibility, including Iraq, Afghanistan, and neighboring nations.

In a September 2006 report to Congress (GAO–06–852), the Government Accountability Office [GAO] determined that current reporting requirements regarding the global basing strategy were not providing Congress with sufficient information to provide necessary oversight of the initiative. According to the GAO report, "Ongoing negotiations between the United States and host nations, evolving cost estimates, and difficulties establishing service management and funding responsibilities for new overseas sites contribute to the complexity and uncertainty of DOD's overseas restructuring effort. In addition, DOD has not established a comprehensive and routine process to keep Congress informed on its progress dealing with these issues and the overall status of implementing the strategy."

For these reasons, the Committee directs the Department to provide an updated report on the Global Defense Posture initiative to

accompany the fiscal year 2009 budget submission. The report should include the following elements: an overview of the current overseas basing strategy and an explanation of any changes to the strategy; the status of host nation negotiations; the cost to date of implementing the military construction elements of the strategy, and an updated estimate of the cost to complete the construction program; and an updated timeline for implementing the strategy.

The report should be submitted to the congressional defense committees in unclassified and, if needed, classified form, no later than February 15, 2008.

The Committee also directs the Government Accountability Office to assess the Department's updated report, with specific emphasis on the following: (1) an analysis of whether the Department has an integrated process for reassessing and adjusting its overseas presence and basing strategy in light of ongoing changes in the security environment in key regions of the world, planned force structure changes, and emerging DOD initiatives, such as the African Command; (2) an assessment of DOD's progress in implementing the global basing strategy reflected in its 2004 report to Congress ("Strengthening U.S. Global Posture"), including an analysis of any changes to DOD's force structure and basing plans, and the rationale for such changes; (3) an update on DOD's progress in establishing its network of Forward Operating Sites [FOS] and Cooperative Security Locations [CSL], including a current definition of what constitutes an FOS and CSL, and an analysis of the issues related to the management and funding of the sites; and (4) a comparison of how DOD's projected costs for implementing its overseas presence and basing strategy compares with initial estimates, and the extent to which the overseas basing strategy is synchronized with the "Grow the Force" initiative, base realignment and closure activities, and other DOD initiatives.

Master Plan, Guam.—The Committee is aware of the extensive plans, to be carried out by the United States Pacific Command [PACOM], to expand the presence of the United States military on Guam, including the movement of approximately 8,000 marines and their families from Japan by 2014. The Government of Japan has agreed to pay approximately 60 percent of the estimated $10,300,000,000 cost of this relocation. The Committee commends the Department of Defense for engaging our allies prior to this move to ensure that the moving process and its cost are undertaken as a partnership with the Government of Japan.

The prospect of such a massive construction program on the island of Guam is ambitious to say the least, and will require a well-developed master plan to efficiently use the available land and infrastructure. The Committee therefore directs the Secretary of Defense to submit a master plan for Guam to the congressional defense committees by December 29, 2007. The Committee also renews its standing request of GAO to review overseas master plans, including a review of the master planning effort for Guam. The Committee further directs the Secretary of Defense to provide a report accounting for the United States' share of this construction program to project-level detail and the year in which each project is expected to be funded.

MILITARY CONSTRUCTION, ARMY

Appropriations, 2007 (including rescissions)[1]	$1,969,652,000
Budget estimate, 2008	4,039,197,000
Committee recommendation	3,928,149,000

[1] Excludes $1,255,890,000 in emergency supplemental funding in Public Law 110–28.

PROGRAM DESCRIPTION

The military construction appropriation for the Army provides for acquisition, construction, installation, and equipment of temporary or permanent public works, military installations, facilities, and real property for the Army. This appropriation also provides for facilities required as well as funds for infrastructure projects and programs required to support bases and installations around the world.

COMMITTEE RECOMMENDATION

The Committee recommends $3,928,149,000 for the Army for fiscal year 2008. This amount is $1,958,497,000 above the fiscal year 2007 enacted level, excluding emergency supplemental funding, and $111,048,000 above the budget request. Further detail of the Committee's recommendation is provided in the State table at the end of this report.

MILITARY CONSTRUCTION, ARMY

Chapel Center, Fort Campbell, Kentucky (Mr. McConnell/Mr. Alexander/Mr. Corker).—Of the funds provided for planning and design in this account, the Committee directs that $450,000 be made available for the design of this facility.

Dining Facility, Camp Rudder, Eglin Air Force Base, Florida (Mr. Nelson).—Of the funds provided for unspecified minor construction in this account, the Committee directs that $1,500,000 be made available for the construction of this facility.

Regional Training Institute, Fort Leonard Wood, Missouri (Mr. Bond).—Of the funds provided for planning and design in this account, the Committee directs that $500,000 be made available for the design of this facility.

Sapper Leader Course General Instruction Building, Fort Leonard Wood, Missouri (Mr. Bond).—Of the funds provided for planning and design in this account, the Committee directs that $360,000 be made available for the design of this facility.

Tactical Training Base, Phase I, Fort Dix, New Jersey (Mr. Lautenberg).—Of the funds provided for planning and design in this account, the Committee directs that $531,000 be made available for the design of this facility.

Wabuska Railroad Line Spur, Hawthorne Army Depot, Nevada (Mr. Reid).—Of the funds provided for unspecified minor construction in this account, the Committee directs that $1,400,000 be made available for the construction of this rail spur.

MILITARY CONSTRUCTION, NAVY AND MARINE CORPS

Appropriations, 2007 (including rescissions)[1]	$1,101,500,000
Budget estimate, 2008	2,104,276,000
Committee recommendation	2,168,315,000

[1] Excludes $370,990,000 in emergency supplemental funding in Public Law 110–28.

PROGRAM DESCRIPTION

The military construction appropriation for the Navy and Marine Corps provides for acquisition, construction, installation, and equipment of temporary or permanent public works, naval installations, facilities, and real property for the Navy and the Marine Corps. This appropriation also provides for facilities required as well as funds for infrastructure projects and programs required to support bases and installations around the world.

COMMITTEE RECOMMENDATION

The Committee recommends $2,168,315,000 for Navy and Marine Corps military construction for fiscal year 2008. This amount is $1,066,815,000 above the fiscal year 2007 enacted level, excluding emergency supplemental funding, and $64,039,000 above the budget request. Further detail of the Committee's recommendation is provided in the State table at the end of this report.

Djibouti.—As noted earlier in this report, the Committee remains concerned that the Navy's infrastructure requests for Camp Lemonier, Djibouti, are predicated on possible future use instead of immediate need. The Committee is also concerned that the United States holds only a 5-year lease, with the option to renew for two additional 5-year terms, for the land on which the Department of Defense proposes to build these projects. It seems inappropriate to the Committee to invest heavily in long-term infrastructure at a location where there is no reasonable assurance that the United States will be permitted to have a long-term presence.

The Committee also observes that the establishment of the new African Command [AFRICOM], which is expected to assume jurisdiction over Camp Lemonier in 2008, remains in the early planning phase. According to a May 16, 2007, report by the Congressional Research Service [CRS] ("Africa Command: U.S. Strategic Interests and the Role of the U.S. Military in Africa"), many questions and congressional oversight issues concerning the future presence of U.S. military forces in Africa remain unanswered. Among the questions CRS raises is how the administration "will ensure that U.S. military efforts in Africa do not overshadow or contradict U.S. diplomatic and development objectives." CRS also notes that the Defense Department "suggests there are no plans to establish any new military bases in Africa."

Clearly, these are key issues the new AFRICOM commander will have to address in considering the future development of Camp Lemonier. In light of the uncertainty surrounding the prospective use of Camp Lemonier, the Committee recommends that the Department restrict its military construction requests to those supporting only immediate operational requirements and withhold long-term infrastructure improvements until the new African Com-

mand is established and further clarity on the future mission of Camp Lemonier is achieved.

MILITARY CONSTRUCTION, NAVY

Bachelor Quarters Addition, Naval Station Newport, Rhode Island (Mr. Reed).—Of the funds provided for planning and design in this account, the Committee directs that $750,000 be made available for the design of this facility.

MILITARY CONSTRUCTION, AIR FORCE

Appropriations, 2007 (including rescissions)[1]	$1,080,306,000
Budget estimate, 2008	912,109,000
Committee recommendation	1,048,518,000

[1] Excludes $43,300,000 in emergency supplemental funding in Public Law 110–28.

PROGRAM DESCRIPTION

The military construction appropriation for the Air Force provides for acquisition, construction, installation, and equipment of temporary or permanent public works, military installations, facilities, and real property for the Air Force. This appropriation also provides for facilities required as well as funds for infrastructure projects and programs required to support bases and installations around the world.

COMMITTEE RECOMMENDATION

The Committee recommends $1,048,518,000 for the Air Force in fiscal year 2008. This amount is $38,212,000 below the fiscal year 2007 enacted level, excluding emergency supplemental funding, and $136,409,000 above the budget request. Further detail of the Committee's recommendation is provided in the State table at the end of this report.

MILITARY CONSTRUCTION, AIR FORCE

Joint Security Forces Building, Lackland AFB, Texas (Mrs. Hutchison/Mr. Cornyn).—Of the funds provided for planning and design in this account, the Committee directs that $900,000 be made available for the design of this facility.

Runway Paving, Dyess AFB, Texas (Mrs. Hutchison/Mr. Cornyn).—Of the funds provided for planning and design in this account, the Committee directs that $1,710,000 be made available for the design of this project.

SOF C–130 Fuel Cell and Corrosion Control Hangars, Cannon AFB, New Mexico (Mr. Domenici/Mr. Bingaman).—Of the funds provided for planning and design in this account, the Committee directs that $855,000 be made available for the design of this facility.

Taxiway, Randolph AFB, Texas (Mrs. Hutchison/Mr. Cornyn).—Of the funds provided for planning and design in this account, the Committee directs that $554,000 be made available for the design of this project.

MILITARY CONSTRUCTION, DEFENSE-WIDE

Appropriations, 2007 (including rescissions)	$1,016,771,000
Budget estimate, 2008	1,799,336,000
Committee recommendation	1,758,755,000

PROGRAM DESCRIPTION

The military construction appropriation for the Department of Defense provides for acquisition, construction, installation, and equipment of temporary or permanent public works, military installations, facilities, and real property Defense-Wide. This appropriation also provides for facilities required as well as funds for infrastructure projects and programs required to support bases and installations around the world.

COMMITTEE RECOMMENDATION

The Committee recommends $1,758,755,000 for projects considered within the "Defense-Wide" account. This amount is $741,984,000 above the fiscal year 2007 enacted level, and $40,581,000 below the budget request. Further detail of the Committee's recommendation is provided in the State table at the end of this report.

CONTINGENCY CONSTRUCTION

The Committee has provided $10,000,000 for the Secretary of Defense "Contingency construction" account. This account provides funds which may be used by the Secretary of Defense for unforeseen facility requirements and military exercises, including those related to the global war on terror.

ENERGY CONSERVATION INVESTMENT PROGRAM

The Committee recommends $85,000,000 for the Energy Conservation Investment Program [ECIP]. This amount is $15,000,000 above the budget request. The Committee maintains a strong interest in renewable energy resources, including wind, solar, and geothermal. The Committee recommends that the $15,000,000 in additional funding provided in this account be used exclusively for renewable energy projects, to supplement the $24,000,000 that the Department proposed for renewable energy in the fiscal year 2008 ECIP budget request, bringing the total amount of funding for these projects to $39,000,000.

Sustainable Development.—In addition to pursuing the use of renewable energy resources at military installations, the Committee urges the Department to incorporate sustainable development, also known as green building applications, into the military construction and Energy Conservation Investment programs to the maximum extent practicable. The Committee believes that sustainable development—including building practices such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design [LEED] Green Building Rating System—is a constructive goal that not only can provide environmentally responsible construction but can also enhance the health and safety of the personnel who work in these facilities. Given the extraordinary scope of the fiscal year 2008 military construction program, includ-

ing BRAC and the "Grow the Force" initiative, the Committee encourages the Department to give priority consideration to the use of green building practices, energy efficiency improvements, and renewable energy resources in the execution of the 2008 construction program.

MILITARY CONSTRUCTION, RESERVE COMPONENTS

(INCLUDING RESCISSION OF FUNDS)

Appropriations, 2007 (including rescissions)	$850,871,000
Budget estimate, 2008	695,201,000
Committee recommendation (including rescission)	929,864,000

PROGRAM DESCRIPTION

The military construction appropriation for Reserve Components provides for acquisition, construction, expansion, rehabilitation, and conversion of facilities for the training and administration of the Reserve Components. This appropriation also provides for facilities required as well as funds for infrastructure projects and programs required to support bases and installations.

COMMITTEE RECOMMENDATION

The Committee recommends $929,864,000 for military construction projects for the Guard and Reserve Components. This amount is $78,993,000 above the fiscal year 2007 enacted level and $234,663,000 above the budget request. Further detail of the Committee's recommendation is provided in the State table at the end of this report.

The Committee recommends approval of military construction, Reserve Components, as outlined in the following table:

RESERVE COMPONENTS

[In thousands of dollars]

Component	Budget request	Committee recommendation
Army National Guard	404,291	478,836
Air National Guard	85,517	228,995
Army Reserve	119,684	138,424
Navy Reserve	59,150	59,150
Air Force Reserve	26,559	24,459
Total	695,201	929,864

The Committee recommends the following rescission:

[In thousands of dollars]

Public Law	Location	Project Title	Committee recommendation
Public Law 109–114 (Fiscal Year 2006)	Alaska: Elmendorf AFB	C–17 Convert Hangar for Armed Forces Reserve Center Group Headquarters.	−3,100
Total			−3,100

The Committee fully expects contracts for the following projects to be awarded, as early in fiscal year 2008 as practical:

MILITARY CONSTRUCTION, ARMY NATIONAL GUARD

Add/Alter Readiness Center, Kenai, Alaska (Mr. Stevens).—Of the funds provided for unspecified minor construction in this account, the Committee directs that $1,400,000 be made available for the construction of this facility.

Armed Forces Reserve Center/Security Forces Facility, Klamath Falls, Oregon (Mr. Wyden/Mr. Smith).—Of the funds provided for planning and design in this account, the Committee directs that $1,452,000 be made available for the design of this facility.

Billeting, Regional & Readiness Technology Center, Northfield, Vermont (Mr. Leahy).—Of the funds provided for unspecified minor construction in this account, the Committee directs that $1,500,000 be made available for the construction of this facility.

Joint Forces Headquarters, New Castle County Air Guard Base, Delaware (Mr. Biden/Mr. Carper).—Of the funds provided for planning and design in this account, the Committee directs that $1,020,000 be made available for the design of this facility.

Joint Forces Headquarters and Emergency Operations Center, Arden Hills Army Training Site, Minnesota (Ms. Klobuchar).—Of the funds provided for planning and design in this account, the Committee directs that $3,536,000 be made available for the design of this facility.

Readiness Center, Logan County, West Virginia (Mr. Byrd).—The Committee understands that a new reserve center is urgently needed at Logan, West Virginia, to accommodate a major mission change and expansion resulting from the Army's transformation and modularity efforts. The Committee therefore urges the Army National Guard to accelerate planning and design for this facility with funds previously appropriated for this purpose, and to include full funding for this project in the fiscal year 2009 budget request.

Readiness Center, The Dalles, Oregon (Mr. Wyden/Mr. Smith).—Of the funds provided for planning and design in this account, the Committee directs that $960,000 be made available for the design of this facility.

Readiness Center, Tullahoma, Tennessee (Mr. Alexander/Mr. Corker).—Of the funds provided for planning and design in this account, the Committee directs that $264,000 be made available for the design of this facility.

United States Property and Fiscal Office, North Kingston, Rhode Island (Mr. Reed).—Of the funds provided for planning and design in this account, the Committee directs that $810,000 be made available for the design of this facility.

MILITARY CONSTRUCTION, AIR NATIONAL GUARD

Joint Forces Headquarters, Rapid City, South Dakota (Mr. Johnson).—Of the funds provided for unspecified minor construction in this account, the Committee directs that $900,000 be made available for the construction of this facility, for purposes of satisfying the Air National Guard portion of this facility.

Replace Squadron Operations and Relocate Security Perimeter, McGhee Tyson Airport, Tennessee (Mr. Alexander/Mr. Corker).—Of

the funds provided for planning and design in this account, the Committee directs that $1,120,000 be made available for the design of this facility.

MILITARY CONSTRUCTION, ARMY RESERVE

Army Reserve Center, Letterkenny Army Depot, Pennsylvania (Mr. Specter/Mr. Casey).—Of the funds provided for planning and design in this account, the Committee directs that $675,000 be made available for the design of this facility.

MILITARY CONSTRUCTION, AIR FORCE RESERVE

Visiting Quarters, Phase I, Pittsburgh Air Reserve Station, Coraopolis, Pennsylvania (Mr. Specter/Mr. Casey).—Of the funds provided for planning and design in this account, the Committee directs that $828,000 be made available for the design of this facility.

NORTH ATLANTIC TREATY ORGANIZATION

SECURITY INVESTMENT PROGRAM

Appropriations, 2007	$204,789,000
Budget estimate, 2008	201,400,000
Committee recommendation	201,400,000

PROGRAM DESCRIPTION

The North Atlantic Treaty Organization [NATO] appropriation provides for the U.S. cost-share of the NATO Security Investment Program for the acquisition and construction of military facilities and installations (including international military headquarters) and for related expenses for the collective defense of the NATO Treaty Area.

COMMITTEE RECOMMENDATION

The Committee recommends $201,400,000 for the North Atlantic Treaty Organization Security Investment Program [NSIP] for fiscal year 2008. This amount is $3,389,000 below the fiscal year 2007 enacted level and equal to the budget request.

Missile Defense.—It is the Committee's understanding that U.S. missile defense facilities proposed for Poland and the Czech Republic are not designated as NATO facilities and thus are not eligible for NSIP funding. Should that status change, the Committee directs that no NSIP funds will be obligated or expended for missile defense studies or for the planning and design or construction of missile defense facilities in Poland or the Czech Republic unless the Committees on Appropriations of the Senate and the House of Representatives are notified in writing 21 days in advance of the obligation of funds and prior approval is obtained from the Committees.

FAMILY HOUSING OVERVIEW

The Committee recommends $2,922,483,000 for family housing construction, operations and maintenance, and the Department's family housing improvement fund. This amount is $1,115,992,000

below the amount appropriated in fiscal year 2007 and $10,000,000 below the fiscal year 2008 budget request.

Oversight of Privatized Family Housing Projects.—The Committee notes that the requirement for family housing construction has been declining steadily over the past several years as the Department has accelerated its family housing privatization program to revitalize military family housing and eliminate inadequate units. The significant drop in the President's fiscal year 2008 budget request is a good indicator of the progress that has been made in reducing the requirement for costly family housing construction. While the Committee strongly supports the privatization program, it remains concerned about the ability of the Services to provide adequate oversight. It is imperative that the Services ensure that private developers meet their contractual obligations to maintain privatized housing communities. To ensure this vigilance, the Committee directs the Secretary of Defense to submit quarterly reports to the congressional defense committees on the maintenance of family housing units and the contributions of housing privatization entities to the recapitalization accounts for each ongoing family housing privatization project. The first such report shall be due no later than March 1, 2008.

FAMILY HOUSING CONSTRUCTION, ARMY

Appropriations, 2007	$579,000,000
Budget estimate, 2008	419,400,000
Committee recommendation	419,400,000

PROGRAM DESCRIPTION

The family housing appropriation for the Army provides for expenses of family housing for construction, including acquisition, replacement, addition, expansion, extension, and alteration. This appropriation provides for the financing of all costs for construction, improvements and leasing of all Army housing. In addition to quality of life enhancements, the program contains initiatives to reduce operating costs and conserve energy by upgrading or replacing facilities which can be made more efficient through relatively modest investments in improvements. The Department of Defense is authorized to use limited partnerships, make direct and guaranteed loans, and convey Department-owned property to stimulate the private sector to increase the availability of affordable, quality housing for the Army.

COMMITTEE RECOMMENDATION

The Committee recommends $419,400,000 for family housing construction, Army, including construction improvements, in fiscal year 2008. This amount is $159,600,000 below the fiscal year 2007 enacted level, and equal to the budget request.

CONSTRUCTION

The Committee recommends $54,000,000 for new construction, as shown below:

ARMY FAMILY HOUSING CONSTRUCTION

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
Germany	Ansbach/Urlas	Whole Neighborhood replacement	52,000	52,000
Worldwide	Various locations	Planning & Design	2,000	2,000
Total			54,000	54,000

CONSTRUCTION IMPROVEMENTS

The following projects are to be accomplished within the amounts provided for construction improvements:

ARMY CONSTRUCTION IMPROVEMENTS

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
Alaska	Fort Wainwright	Family Housing Privatization (1,421 units)	25,000	25,000
Colorado	Fort Carson	Family Housing Privatization (570 units) (Grow the Force).	98,300	98,300
North Carolina	Fort Bragg	Family Housing Privatization (446 units)(Grow the Force).	59,400	59,400
Oklahoma	Fort Sill	Family Housing Privatization (1,415 units)	30,500	30,500
South Carolina	Fort Jackson	Family Housing Privatization (1,162 units)	43,900	43,900
Texas	Fort Bliss	Family Housing Privatization (442 units) (Grow the Force).	35,600	35,600
Washington	Fort Lewis	Family Housing Privatization (520 units) (Grow the Force).	72,700	72,700
Total			365,400	365,400

FAMILY HOUSING OPERATION AND MAINTENANCE, ARMY

Appropriations, 2007	$671,000,000
Budget estimate, 2008	742,920,000
Committee recommendation	742,920,000

PROGRAM DESCRIPTION

The family housing operation and maintenance appropriation for the Army provides for the operation and maintenance of family housing. This includes debt payment, leasing, minor construction, principal and interest charges, and insurance premiums of Army family housing.

COMMITTEE RECOMMENDATION

The Committee recommends $742,920,000 for family housing operation and maintenance, Army. This amount is $71,920,000 above the fiscal year 2007 enacted level, and equal to the budget request.

FAMILY HOUSING CONSTRUCTION, NAVY AND MARINE CORPS

Appropriations, 2007	$305,000,000
Budget estimate, 2008	298,329,000
Committee recommendation	288,329,000

PROGRAM DESCRIPTION

The family housing appropriation for the Navy and Marine Corps provides for expenses of family housing for construction, including acquisition, replacement, addition, expansion, extension, and alteration. This appropriation provides for the financing of all costs for construction, improvements, and leasing of all Navy and Marine Corps housing. In addition to quality of life enhancements, the program contains initiatives to reduce operating costs and conserve energy by upgrading or replacing facilities which can be made more efficient through relatively modest investments in improvements. The Department of Defense is authorized to use limited partnerships, make direct and guaranteed loans, and convey Department-owned property to stimulate the private sector to increase the availability of affordable, quality housing for the Navy and Marine Corps.

COMMITTEE RECOMMENDATION

The Committee recommends $288,329,000 for family housing construction, Navy and Marine Corps, in fiscal year 2008. This amount is $16,671,000 below the fiscal year 2007 enacted level and $10,000,000 below the budget request.

CONSTRUCTION

The Committee recommends $50,339,000 for new construction, as shown below:

NAVY AND MARINE CORPS FAMILY HOUSING CONSTRUCTION

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
Guam	Guam	Replace Old Apra, PH II	57,167	47,167
Worldwide	Various locations	Planning & Design	3,172	3,172
Total			60,339	50,339

CONSTRUCTION IMPROVEMENTS

The following projects are to be accomplished within the amounts provided for construction improvements:

NAVY AND MARINE CORPS CONSTRUCTION IMPROVEMENTS

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
California	Camp Pendleton	Privatization (151 units)	25,175	25,175
California	Camp Pendleton	Privatization (150 units) (Grow the Force)	25,000	25,000
California	Twentynine Palms	Privatization (279 units) (Grow the Force)	50,000	50,000
North Carolina	Camp Lejeune	Privatization (451 units)	87,951	87,951
Guam	Guam	Whole House Improvements (33 units)	9,475	9,475
Guam	Guam	Repairs and Improvements	242	242
Japan	Atsugi	Revitalization (72 units)	13,563	13,563
Japan	Iwakuni	Revitalization (96 units)	12,321	12,321
Japan	Sasebo	Revitalization (21 units)	3,808	3,808
Korea	Chinhae	Revitalization (50 units)	8,971	8,971

NAVY AND MARINE CORPS CONSTRUCTION IMPROVEMENTS—Continued

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
Spain	Rota	Conversion (28 duplexes into 14 homes)	1,484	1,484
Total			237,990	237,990

FAMILY HOUSING OPERATION AND MAINTENANCE, NAVY AND MARINE CORPS

Appropriations, 2007	$505,000,000
Budget estimate, 2008	371,404,000
Committee recommendation	371,404,000

PROGRAM DESCRIPTION

The family housing operation and maintenance appropriation for the Navy and Marine Corps provides for the operation and maintenance of family housing. This includes debt payment, leasing, minor construction, principal and interest charges, and insurance premiums of Navy and Marine Corps family housing.

COMMITTEE RECOMMENDATION

The Committee recommends $371,404,000 for family housing operation and maintenance, Navy and Marine Corps, in fiscal year 2008. This amount is $133,596,000 below the fiscal year 2007 enacted level and equal to the budget request.

FAMILY HOUSING CONSTRUCTION, AIR FORCE

Appropriations, 2007 (including rescissions)	$1,150,000,000
Budget estimate, 2008	362,747,000
Committee recommendation	362,747,000

PROGRAM DESCRIPTION

The family housing appropriation for the Air Force provides for expenses of family housing for construction, including acquisition, replacement, addition, expansion, extension, and alteration. This appropriation provides for the financing of all costs for construction, improvements and leasing of all Air Force housing. In addition to quality of life enhancements, the program contains initiatives to reduce operating costs and conserve energy by upgrading or replacing facilities which can be made more efficient through relatively modest investments in improvements. The Department of Defense is authorized to use limited partnerships, make direct and guaranteed loans, and convey Department-owned property to stimulate the private sector to increase the availability of affordable, quality housing for the Air Force.

COMMITTEE RECOMMENDATION

The Committee recommends $362,747,000 for family housing construction, Air Force, in fiscal year 2008. This amount is $787,253,000 below the fiscal year 2007 enacted level, including rescissions, and equal to the budget request.

CONSTRUCTION

The Committee recommends $68,485,000 for new construction, as shown below:

AIR FORCE FAMILY HOUSING CONSTRUCTION

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
Germany	Ramstein AB	Replace Family Housing (117 units)	56,275	56,275
Worldwide	Various locations	Planning & Design	12,210	12,210
Total			68,485	68,485

CONSTRUCTION IMPROVEMENTS

The following projects are to be accomplished within the amounts provided for construction improvements:

AIR FORCE CONSTRUCTION IMPROVEMENTS

[In thousands of dollars]

Location	Installation	Project title	Budget request	Committee recommendation
Australia	Exmouth Family Housing Annex.	Improve Family Housing (12 units)	3,612	3,612
Germany	Ramstein AB	Improve Family Housing (20 units)	4,675	4,675
Japan	Kadena AB, Okinawa	Improve Family Housing (741 units)	142,880	142,880
Japan	Kadena AB, Okinawa	Install Government Furnished Materials (248 units).	1,118	1,118
Japan	Kadena AB, Okinawa	Install Air Conditioning System	916	916
Japan	Misawa AB	Improve Family Housing (256 units)	42,345	42,345
Japan	Yokota AB	Improve Family Housing (190 units)	44,907	44,907
Turkey	Incirlick AB	Improve Family Housing (515 units)	41,272	41,272
United Kingdom	RAF Bicester	Improve Family Housing (36 units)	12,486	12,486
United Kingdom	RAF Menwith Hill	Improve Family Housing (1 unit)	51	51
Total			294,262	294,262

FAMILY HOUSING OPERATION AND MAINTENANCE, AIR FORCE

Appropriations, 2007	$750,000,000
Budget estimate, 2008	688,335,000
Committee recommendation	688,335,000

PROGRAM DESCRIPTION

The family housing operation and maintenance appropriation for the Air Force provides for the operation and maintenance of family housing. This includes debt payment, leasing, minor construction, principal and interest charges, and insurance premiums of Air Force family housing.

COMMITTEE RECOMMENDATION

The Committee recommends $688,335,000 for family housing operation and maintenance, Air Force, in fiscal year 2008. This amount is $61,665,000 below the fiscal year 2007 enacted level and equal to the budget request.

FAMILY HOUSING CONSTRUCTION, DEFENSE-WIDE

Appropriations, 2007	$9,000,000
Budget estimate, 2008	
Committee recommendation	

PROGRAM DESCRIPTION

The family housing appropriation for Defense-Wide provides for expenses of family housing for construction, including acquisition, replacement, addition, expansion, extension, and alteration. This appropriation provides for the financing of all costs for construction, improvements and leasing of housing Defense-Wide. In addition to quality of life enhancements, the program contains initiatives to reduce operating costs and conserve energy by upgrading or replacing facilities which can be made more efficient through relatively modest investments in improvements. The Department of Defense is authorized to use limited partnerships, make direct and guaranteed loans, and convey Department-owned property to stimulate the private sector to increase the availability of affordable, quality housing Defense-Wide.

COMMITTEE RECOMMENDATION

The Committee recommends no funding for family housing construction, Defense-Wide, in fiscal year 2008 as requested by the President.

FAMILY HOUSING OPERATION AND MAINTENANCE, DEFENSE-WIDE

Appropriations, 2007	$49,000,000
Budget estimate, 2008	48,848,000
Committee recommendation	48,848,000

PROGRAM DESCRIPTION

The family housing operation and maintenance appropriation for Defense-Wide provides for the operation and maintenance of family housing. This includes debt payment, leasing, minor construction, principal and interest charges, and insurance premiums of Defense family housing.

COMMITTEE RECOMMENDATION

The Committee recommends $48,848,000 for family housing operation and maintenance, Defense-Wide. This amount is $152,000 below the fiscal year 2007 enacted level and equal to the budget request.

FAMILY HOUSING IMPROVEMENT FUND

Appropriations, 2007	$2,475,000
Budget estimate, 2008	500,000
Committee recommendation	500,000

PROGRAM DESCRIPTION

The family housing improvement appropriation provides for the Department of Defense to undertake housing initiatives and to provide an alternative means of acquiring and improving military fam-

ily housing and supporting facilities. This account provides seed money for housing privatization initiatives.

COMMITTEE RECOMMENDATION

The Committee recommends $500,000 for the Family Housing Improvement Fund. This amount is $1,975,000 below the fiscal year 2007 enacted level and equal to the budget request.

CHEMICAL DEMILITARIZATION CONSTRUCTION, DEFENSE-WIDE

Appropriations, 2007	$131,000,000
Budget estimate, 2008	86,176,000
Committee recommendation	104,176,000

PROGRAM DESCRIPTION

This account provides funding for design and construction of full-scale chemical disposal facilities and associated projects to upgrade installation support facilities and infrastructure required to support the Chemical Demilitarization Program. This account was established starting in fiscal year 2005 to comply with section 141(b) of the fiscal year 2003 National Defense Authorization Act.

COMMITTEE RECOMMENDATION

The Committee recommends $104,176,000 for chemical demilitarization construction projects, an increase of $18,000,000 over the President's budget request.

BASE CLOSURE ACCOUNT 1990

Appropriations, 2007	$252,279,000
Budget estimate, 2008	220,689,000
Committee recommendation	320,689,000

PROGRAM DESCRIPTION

The base closure appropriation (1990) provides for clean up and disposal of property consistent with the four closure rounds required by the base closure Acts of 1988 and 1990.

COMMITTEE RECOMMENDATION

The Committee recommends a total of $320,689,000 for the Base Closure Account 1990. This is $68,410,000 above the fiscal year 2007 enacted level and $100,000,000 above the President's budget request. The Committee notes that the Department of the Navy requested no funds for BRAC environmental cleanup, and is instead continuing to rely solely on revenue from BRAC land sales to finance its prior BRAC environmental cleanup effort. For fiscal year 2008, the Navy anticipates land sale revenues of $178,800,000. The Committee commends the Navy for its innovative approach to funding its BRAC environmental cleanup program, but is concerned that revenues from Navy BRAC land sales are declining as the inventory of property available for disposal is reduced. This is particularly troubling at a time when the Navy's cost to complete its prior BRAC cleanup program has increased by $725,000,000 over the past year due to additional remediation requirements at several installations.

According to the most recent estimate from the Government Accountability Office, the projected cost to complete the environmental cleanup from previous BRAC rounds is in excess of $3,000,000,000. Of that amount, the Navy alone estimates a cost to complete of $1,168,000,000. Environmental contamination at closed military installations constrains the reuse of these properties and imposes a burden on the Department and on the affected communities. The Committee believes strongly that environmental cleanup from previous BRAC rounds must remain a priority for the Department and for the Nation, and should be completed as expeditiously as possible. The Committee is particularly concerned that resources allotted to the cleanup of bases closed under previous rounds should not be diminished in the face of the major investment required to execute the BRAC 2005 round.

The Committee understands that the Services have the ability to execute additional BRAC environmental cleanup activities beyond those provided for in the fiscal year 2008 budget request. The Committee therefore recommends an increase of $100,000,000 above the President's budget request for the BRAC 1990 account, of which $30,000,000 shall be for the Army, $50,000,000 for the Navy, and $20,000,000 for the Air Force.

BASE CLOSURE ACCOUNT 1990 ENVIRONMENTAL OVERVIEW

From fiscal year 1990 through fiscal year 2007, a total of $23,710,833,000 has been appropriated for the environmental clean up of military installations closed or realigned under prior BRAC rounds. The total amount appropriated for BRAC 1990, combined with the Committee recommendation for fiscal year 2008, is $24,031,522,000.

In appropriating these funds, the Committee continues to provide the Department with broad flexibility to allocate funds by Service, function, and installation. The following table displays the total amount appropriated for each round of base closure, including amounts recommended for fiscal year 2008 for BRAC 1990.

BASE REALIGNMENT AND CLOSURE ACCOUNT, 1990

[Total funding, fiscal year 1990 through fiscal year 2008]

	1990–2006	Fiscal year		Total
		2007 enacted	2008 Committee recommendation	
Part I	$2,684,577,000	([1])	([1])	$2,684,577,000
Part II	4,915,636,000	([1])	([1])	4,915,636,000
Part III	7,269,267,000	([1])	([1])	7,269,267,000
Part IV	8,589,074,000	$252,279,000	$320,689,000	9,162,042,000
Total	23,458,554,000	252,279,000	320,689,000	24,031,522,000

[1] Not Applicable.

BASE CLOSURE ACCOUNT 2005

Appropriations, 2007 [1]	$2,489,421,000
Budget estimate, 2008	8,174,315,000
Committee recommendation	8,174,315,000

[1] Excluding $3,136,802,000 in emergency supplemental funding in Public Law 110–28.

PROGRAM DESCRIPTION

The base realignment and closure appropriation for 2005 provides for clean up and disposal of property consistent with the 2005 closure round required by the Defense Base Closure and Realignment Act of 1990 (10 U.S.C. section 2687 note).

COMMITTEE RECOMMENDATION

The Committee recommends a total of $8,174,315,000 for the Department of Defense Base Closure Account 2005. This amount is $5,684,894,000 above the fiscal year 2007 enacted level, excluding emergency supplemental funding, and equal to the budget request.

The following chart details projects to be carried out using BRAC 2005 funding. Given the magnitude of this effort, and the number and scope of military construction projects associated with it, the Committee is concerned that the projected construction cost of individual projects planned under the BRAC 2005 program may escalate from the original estimate due to market conditions and other variables. The Committee therefore directs that any above-threshold cost or scope variation, any cancellation of projects, or any transfer of funds among construction projects associated with the BRAC 2005 projects identified in the table following this narrative be subject to the standard reprogramming and notification requirements that apply to the regular military construction appropriation.

Enhanced Use Leasing.—In an effort to accomplish the objectives of the BRAC 2005 round in as timely and cost-efficient manner as possible, the Committee urges the Department to fully explore private sector funding options that could augment funding provided through the military construction program. In particular, the Committee recommends that the Army, which is tasked under BRAC with the significant expansion of a number of its major installations, should consider the services and funding capabilities of the private sector by leveraging Enhanced Use Lease opportunities to expedite the development of new facilities at these installations.

BRAC 2005 PROJECTS

[In thousands of dollars]

State	Service	Location	Commission recommendation	Project	Dollar amount
Alaska	Air Force	Elmendorf AFB	80,110	Aircraft Maintenance Complex	11,400
			80,110	Ops and Med Training	12,200
			80,110	Composite Support Complex	9,600
Alabama	Army	Montgomery	11	Joint Forces Headquarters Building	36,100
		Redstone Arsenal	148	Army Materiel Command & United States Army Security Assistance Command Headquarters Incr 1.	30,000
	Missile Defense Agency	Redstone Arsenal	134	Construct Von Braun Complex	73,600
Arkansas	Army	Arkadelphia	13	Armed Forces Reserve Center Building	12,200
		Fort Chaffee	13	Joint Forces Vehicle Maintenance Facility	31,300
	Air Force	Little Rock AFB	92, 93, 103	Aerospace Ground Equipment/Engine Facility	2,800
California	Army	Bell	73	Armed Forces Reserve Center, Incr 2	22,100
	Navy	China Lake	184	Fuse Test Facility	9,476
			184	Hardware In the Loop Facility	13,890
			188	Fixed Wing Transfer Facility/AF	8,600
		NS San Diego	71	Renovate Commander, Mine Warfare Command, Headquarters.	19,558
			71	Child Development Center	7,079
			71	Upgrade Magnetic Silencing Facility for MCMs	6,000
		Naval Weapons Station Seal Beach	71	Mobile Mine Assembly Unit 15 Collocation to Building 78.	5,150
Colorado	Army	Fort Carson	6	Hospital Addition	27,000
			6	Troop Health Clinic	54,000
			6	Brigade Combat Team Complex, Incr 3	90,000
			6	Division Headquarters Complex, Incr 2	20,000
			6	Vehicle Maintenance Facility	13,200
	Air Force	Buckley AFB	91,143B	Utility Infrastructure Construction	10,080
	Counterintelligence Field Activity	Peterson AFB	131	CIFA West Office Building	2,363
Florida	Army	Eglin Air Force Base	4	Indoor Firing Range	4,850
			4	Live Fire Exercise Shoothouse	3,300
			4	Live Fire Exercise Breach Facility	3,750
			4	Shotgun Assault Course	3,000
			4	Grenade Launcher Range	1,050
			4	Hand Grenade Qualification Course	1,000
			4	Urban Assault Course	1,500

BRAC 2005 PROJECTS—Continued

[In thousands of dollars]

State	Service	Location	Commission recommendation	Project	Dollar amount
	Navy	Jacksonville	65	Hangar/Parking Apron	19,761
	Air Force	MacDill AFB	104	Air Force Reserve Civil Engineering and Disaster Prep Training.	3,500
			104	Air Force Reserve Fire Fighting Administration/Training.	1,150
			104	Air Force Reserve Aeromedical Strategy and Tactics Analysis Group Squadron Training.	3,150
			104	Air Force Reserve Communications Squadron Trainng ...	940
			104	Air Force Reserve Add Services Flight Training	840
			104	Air Force Reserve Security Forces Squadron Training	2,200
		Homestead Air Reserve Base	113, 115	Armed Forces Reserve Center Add Avionics and Electronic Countermeasures Shop.	2,150
		Eglin AFB	125	Joint Strike Fighter Academic Simulator Facility	26,000
			125	USMC Hangar	16,800
		Naval Air Station Pensacola	128	Air Force Combat Systems Officer Training Hangar	36,500
			128	Combat Systems Officer Training Facility	13,000
Georgia	Army	Fort Benning	9	Troop Health Clinic—Winder, Sand Hill	5,100
			9	Troop Health Clinic—Harmony Church	16,000
			9	Troop Dental Clinic—Solomon, Sand Hill	3,550
			9	Modified Record Fire Range 2	4,500
			9	Modified Record Fire Range 1	4,500
			9	Vehicle Maintenance Facility	23,000
			9	General Instruction Complex 1	24,000
			9	Training Aid Support Center Conversion	3,800
			9	Infrastructure Support Incr 1	74,000
			9	Training Support Brigade Complex Incr 2	73,000
	Navy	Fort Gillem	62	RIA–14 Facility	3,764
	Air Force	Moody AFB	79, 103	Dormitory, 120–PN	14,000
		Robins AFB	87	Relocate 202 Environmental Impact Study Operations ..	1,700
Hawaii	Army	Keauhaha	18	Armed Forces Reserve Center Building	49,200
Iowa	Army	Iowa Army Ammunition Plant	162	Industrial Waste Treatment Plant	3,000
Illinois	Army	Lake County	19	Armed Forces Reserve Center Building	25,000
		Mt Vernon Armory	19	Armed Forces Reserve Center Building	26,400
		Rock Island Arsenal	151	Metal Parts Production Addition/Alteration	10,600

	Air Force	Scott AFB	142	Headquarters US Transportation Command Facilities	83,800
Indiana	Army	Lafayette	20	Armed Forces Reserve Center Building	28,605
Kansas	Army	Fort Riley	10	Combat Aviation Brigade Complex Incr 2	109,000
Kentucky	Army	Fort Knox	9	Armed Forces Reserve Center Building, Phase 1	12,000
			143	Human Resources Command Complex, Ph 2 Incr 1	55,000
Louisiana	Army	Baton Rouge	23	Armed Forces Reserve Center Building	40,666
			73	Armed Forces Reserve Center	8,000
	Navy	Naval Air Station/Joint Reserve Base New Orleans.	64	Flag Housing	1,527
			64	Library	3,377
			64	Recreation Center	2,186
			64	General Administrative Building	9,158
			64	Veterinary Facility	806
	Air Force	Naval Air Station, New Orleans Joint Reserve Base.	108	Relocate 214 Environmental Impact Study Operations	1,200
Massachusetts	Air Force	Barnes Manpower Personnel Training, Air Guard Squadron.	94	Add To Munitions Storage	5,000
			94	Alert Complex	16,500
Maryland	Army	Aberdeen Proving Ground	5	Command, Control, Computers, Communications, Intelligence, Surveillance, and Reconnaissance (C4ISR) Facilities Ph 3 Incr 1.	141,000
			5	Command, Control, Computers, Communications, Intelligence, Surveillance, and Reconnaissance (C4ISR) (I2WD) Facilities Ph 2.	104,000
			169	Medical Research Lab, Chem Bio Defense	27,000
			187	Army Research Lab	2,900
	Navy	Indian Head	184	Explosives Development Facility	28,789
	Air Force	Andrews AFB	129	Headquarters & Readiness Center (Increment 1)	28,000
	Defense Information Systems Agency.	Fort Meade	140	Construct DISA Building	151,994
	National Security Agency	Fort Meade	130	Construct Adjudication Facility	94
	TRICARE Management Activity	Walter Reed National Military Medical Center, Bethesda.	169	Medical Center Addition/Alteration Incr 1	214,800
Maine	Navy	Kittery	65	Survival, Evasion, Resistance and Escape (SERE) School and Addition to Building B315.	12,740
		Brunswick	65	Naval Mobile Construction Battalion 27 Facilities	9,295
Michigan	Air Force	Selfridge Air National Guard Base	95	Add to Fuel/Corrosion Control	1,050
Minnesota	Army	Faribault Army National Guard	27	Armed Forces Reserve Center Building	16,000
Missouri	Army	Jefferson Barracks	28	Armed Forces Reserve Center Building	27,100
Montana	Army	Missoula Armory	29	Armed Forces Reserve Center Building	19,200

BRAC 2005 PROJECTS—Continued

[In thousands of dollars]

State	Service	Location	Commission recommendation	Project	Dollar amount
	Air Force	Great Falls International Airport, Air Guard Station.	94	Upgrade Munitions Storage	3,300
North Carolina	Army	Fort Bragg	4	Troop Medical Clinic	16,500
	Air Force	Pope AFB	103	Reconfigure Base Supply Building 560	796
			103	Reconfigure Wing Headquarters Building 753	778
		Seymour Johnson AFB	104, 119	Fitness Center Addition B4210	1,600
			104, 119	Recreation Center Addition Bldg 3728	820
			104, 119	Construct Flightline Kitchen Facility	960
North Dakota	Air Force	Grand Forks AFB	104	Convert Hangar for UAV Corrosion Control	1,280
New Jersey	Navy	McGuire AFB	68	Construct Helicopter Hangars & Marine Aircraft Group Headquarters.	37,809
			68	Joint Use Reserve Training Center	20,580
			68	Navy VR Fleet Logistics Operations Facility	27,558
New Mexico	Air Force	Kirtland AFB	187	Space Vehicle Facility	42,700
New York	Army	Farmingdale	34	Armed Forces Reserve Center Building, Incr 1	65,000
		Niagara Falls	34	Armed Forces Reserve Center Building	27,000
		Fort Hamilton	53	Armed Forces Reserve Center Building	64,000
Ohio	Army	Columbus	37	Armed Forces Reserve Center Building	29,000
		Springfield	37	Armed Forces Reserve Center Building	25,500
	Navy	Wright-Patterson AFB	174	Aero Medical Research Laboratory	13,600
	Air Force	Wright-Patterson AFB	170, 188A	Alter Acquisition Management Facility (Human Systems Group/YA & Fixed Wing).	15,000
			170	Alter Materials Laboratory (Human Systems Group/YA Labs).	6,200
			170	Radiation Calibration Factiliy	4,600
			170	Air Force Institute for Operational Health Facility	54,000
			170	Air Force Research Labratory/Human Effectiveness (Brooks).	32,000
			170	U.S. Air Force School of Aviation Medicine Consult Service.	18,500
			170	U.S. Air Force School of Aviation Medicine (Increment 1).	51,000
			170, 187, 188A	Dining Facility	980

			187	Air Force Research Labratory/Human Effectiveness (MESA).	34,000
Oklahoma	Army	Fort Sill	x	Air Defense Artillery Brigade Complex, Incr 1	89,000
			38	Armed Forces Reserve Center Building	34,000
		McAlester	38	Armed Forces Reserve Center Building	16,000
		Norman	38	Armed Forces Reserve Center Building	43,200
		Vance AFB	38	Armed Forces Reserve Center Building	15,000
		West Oklahoma City	38	Armed Forces Reserve Center Building	41,000
		Fort Sill	126	Training Aids Support Center	6,000
			126	Air Defense Artillery School Complex Incr 2	87,000
	Air Force	Tinker AFB	108	Air Force Reserve Squadron Operations/Life Support	6,900
	Defense Logistics Agency	Defense Distribution Depot Oklahoma City (DDOO).	177	Construct General Purpose Warehouse	22,000
Pennsylvania	Army	Letterkenny Army Depot	7	Guided Missle Launcher Equipment Shop, Depot	11,600
		AFRC Bristol	40	Armed Forces Reserve Center Building	25,000
		AFRC Scranton	40	Armed Forces Reserve Center Building	32,000
		Tobyhanna Army Depot	57	Radar Test Range	2,450
	Navy	Lehigh Valley	73	Navy Marine Corps Reserve Center (NMCRC) Reading to NMCRC Lehigh Valley.	8,600
	Defense Logistics Agency	Defense Distribution Depot Susquehanna (DDSP).	177	Construct General Purpose Warehouse	38,350
South Carolina	Army	Fort Jackson	50	Drill Sergeant School	24,000
			124	Joint Religous Education & Training Center	11,600
	Navy	Goose Creek	71	Explosive Ordnance Disposal Mobile Unit (EODMU–6) Detachment Boat Shops.	1,580
	Air Force	Shaw AFB	3A	Base Operational Support Project for Headquarters 3rd Army.	25,000
Texas	Army	Fort Bliss	x	Combined Arms Collective Training Facility	18,500
			10	Brigade Combat Team Complex #3 Incr 1	103,000
			10	Digital Multipurpose Training Range	15,000
			10	Urban Assault Course	2,300
			10	Convoy Live Fire Training Range	3,200
			10	Infantry Squad Battle Course	2,400
			10	Troop Health Clinic	42,000
			10	Physical Fitness Facility	22,000
			10	Youth Center Expansion	2,000
			10	Information System Processing Center	6,100
			10	Infrastructure Support Ph 2	55,000
			10	Combat Aviation Brigade Complex Incr 2	90,000
			10	Close Combat Tactical Trainer Facility	6,100

BRAC 2005 PROJECTS—Continued

[In thousands of dollars]

State	Service	Location	Commission recommendation	Project	Dollar amount
			10	Brigade Combat Team Complex #2 Incr 2	70,000
		East Houston	44	Armed Forces Reserve Center Building	36,000
		Fort Bliss	44	Armed Forces Reserve Center Building	49,900
		Northwest Houston	44	Armed Forces Reserve Center Building	31,900
		Fort Sam Houston	174	Battlefield Health & Trauma, Incr 2	53,000
	Navy	Fort Sam Houston	174	Battlefield Health Trauma Bio-Med Lab	7,473
	Air Force	Naval Air Station Fort Worth Joint Reserve Base.	113	Air Force Reserve Munitions Igloos	1,250
		Randolph AFB	137C	Civilian Personnel Office Administration Center Facility.	10,900
		Lackland AFB	147, 170	Headquarters Admin Center (Air Force Center for Environmental Excellence & Air Force Real Property Agency & Air Force Wide Support Element).	37,000
		Fort Sam Houston	172	Medical Training Facilities (Increment 1)	96,400
			172	Medical Education & Training—Dining Facilities	38,000
			172	Medical Education and Training Center Student Dorm #1 (Increment 1).	46,500
			172	Medical Education and Training Center Student Dorm #2 (Increment 1).	47,000
	TRICARE Management Activity	Fort Sam Houston	172	Addition/Alteration for San Antonio Military Medical Center (SAMMC) North Incr 1.	156,035
		Fort Sam Houston	172	Health Clinic	43,100
Virginia	Army	Fort Lee	121	Combat Service Support School Ph 1 Incr 2	212,000
			121	Combat Service Support School Ph 2 Incr 1	173,000
			122	Joint Center for Consolidated Transportation	13,400
		Fort Belvoir	169	Infrastructure Support Incr 1	20,000
	Navy	Quantico	131	Investigative Agency Facilities	143,132
		NSY Norfolk	164	Ship Maintenance Engineering Facility Modification	19,362
			166	Engineering Management Facility Conversion	9,506
		Dahlgren	184	Research, Development, and Acquisition—Test and Evaluation Consolidated Facility.	28,930
	Defense Commissary Agency	Fort Lee	139	Facility for Consolidation	23,389
	Defense Intelligence Agency	Rivanna Station, Charlottesville	167	Joint Use Intelligence Facility—Phase 1	41,000
	Missile Defense Agency	Fort Belvoir	134	Construct Headquarters Command Center	25,100

	National Geospatial-Intelligence Agency.	Fort Belvoir	168	Construct NGA Building	428,879
	TRICARE Management Activity	Fort Belvoir	169	Hospital 1st Increment	219,400
	Washington Headquarters Services.	Fort Belvoir	133	Office Complex, Increment 1	321,546
Vermont	Army	Rutland	45	Armed Forces Reserve Center Building	23,000
Washington	Army	Yakima	46	Armed Forces Reserve Center Building	20,000
	Navy	Bremerton	166	Ship Maintenance Engineering Consolidation	130
		Fort Lewis	76	Relocate Navy Cargo Handling Facilities Battalion 5	7,333
Wyoming	Army	Joint Forces Hqtrs. Cheyenne	49	Armed Forces Reserve Center Building	32,500
	Air Force	Cheyenne MAP AGS	106	Squadron Operations Addition	3,200
Various Locations	Army	Various Locations		Planning and Design	183,900
District of Columbia	Navy	Washington		Planning and Design	20,127
	Air Force	Various Locations		MILCON Planning and Design	25,487
Total Milcon and P&D.					6,419,758
Various Locations	Army	Various		Environmental	86,756
	Navy	Various		Environmental	16,953
	Air Force	Various		Environmental	8,696
	Defense Wide	Various		Environmental	
Total Environmental					112,405
Various Locations	Army	Various		Operations and Maintenance	442,967
	Navy	Various		Operations and Maintenance	205,656
	Air Force	Various		Operations and Maintenance	222,601
	Defense Wide	Various		Operations and Maintenance	317,492
Total Operations and Maintenance.					1,188,716
Various Locations	Army	Various		Military Personnel Moves	
	Navy	Various		Military Personnel Moves	2,499
	Air Force	Various		Military Personnel Moves	12,256
	Defense Wide	Various		Military Personnel Moves	
Total MilPers PCS					14,755

BRAC 2005 PROJECTS—Continued

[In thousands of dollars]

State	Service	Location	Commission recommendation	Project	Dollar amount
Various Locations	Army	Various		Other	244,502
	Navy	Various		Other	1,711
	Air Force	Various		Other	30,548
	Defense Wide	Various		Other	161,920
Total Other					438,681
Total BRAC 2005 fiscal year 2008 All Categories.					8,174,315

ADMINISTRATIVE PROVISIONS

SEC. 101. The Committee includes a provision that restricts payments under a cost-plus-a-fixed-fee contract for work, except in cases of contracts for environmental restoration at base closure sites.

SEC. 102. The Committee includes a provision that permits use of funds for hire of passenger motor vehicles.

SEC. 103. The Committee includes a provision that permits use of funds for defense access roads.

SEC. 104. The Committee includes a provision that prohibits construction of new bases inside the continental United States for which specific appropriations have not been made.

SEC. 105. The Committee includes a provision that limits the use of funds for purchase of land or land easements.

SEC. 106. The Committee includes a provision that prohibits the use of funds to acquire land, prepare a site, or install utilities for any family housing except housing for which funds have been made available.

SEC. 107. The Committee includes a provision that limits the use of minor construction funds to transfer or relocate activities among installations.

SEC. 108. The Committee includes a provision that prohibits the procurement of steel unless American producers, fabricators, and manufacturers have been allowed to compete.

SEC. 109. The Committee includes a provision that prohibits payments of real property taxes in foreign nations.

SEC. 110. The Committee includes a provision that prohibits construction of new bases overseas without prior notification.

SEC. 111. The Committee includes a provision that establishes a threshold for American preference of $500,000 relating to architect and engineering services if a host country has not increased defense spending by at least 3 percent in calendar year 2005.

SEC. 112. The Committee includes a provision that establishes preference for American contractors for military construction in the United States territories and possessions in the Pacific, and on Kwajalein Atoll, or in countries bordering the Arabian Sea.

SEC. 113. The Committee includes a provision that requires notification of military exercises involving construction in excess of $750,000.

SEC. 114. The Committee includes a provision that limits obligations during the last 2 months of the fiscal year.

SEC. 115. The Committee includes a provision that permits funds appropriated in prior years to be available for construction authorized during the current session of Congress.

SEC. 116. The Committee includes a provision that permits the use of expired or lapsed funds to pay the cost of supervision for any project being completed with lapsed funds.

SEC. 117. The Committee includes a provision that permits obligation of funds from more than 1 fiscal year to execute a construction project, provided that the total obligation for such project is consistent with the total amount appropriated for the project.

SEC. 118. The Committee includes a provision that directs the Department to report annually on actions taken to encourage other nations to assume a greater share of the common defense burden.

SEC. 119. The Committee includes a provision that allows transfer of proceeds from earlier base closure accounts to the continuing base closure account (1990, parts I–IV).

SEC. 120. The Committee includes a provision that permits the transfer of funds from Family Housing Construction accounts to the DOD Family Housing Improvement Fund and from Military Construction accounts to the DOD Military Unaccompanied Housing Improvement Fund.

SEC. 121. The Committee includes a provision that requires the Secretary of Defense to notify the congressional defense committees of all family housing privatization solicitations and agreements which contain any clause providing consideration for base realignment and closure, force reductions and extended deployments.

SEC. 122. The Committee includes a provision that provides transfer authority to the Homeowners Assistance Program.

SEC. 123. The Committee includes a provision that requires that all acts making appropriations for military construction be the sole funding source of all operation and maintenance for family housing, including flag and general officer quarters, and limits the repair on flag and general officer quarters to $35,000 per year without prior notification to the congressional defense committees.

SEC. 124. The Committee includes a provision that provides authority to expend funds from the "Ford Island Improvement" account.

SEC. 125. The Committee includes a provision that prohibits the expenditure of funds at installations or for projects no longer necessary as a result of BRAC 2005.

SEC. 126. The Committee includes a provision that specifies notification and reprogramming requirements for "Grow the Force" projects.

TITLE II

DEPARTMENT OF VETERANS AFFAIRS

ITEMS OF SPECIAL INTEREST

HEARINGS

The subcommittee on Military Construction and Veterans Affairs held one hearing related to the fiscal year 2008 Department of Veterans Affairs [VA] budget request on April 12, 2007. The subcommittee heard testimony from the Honorable R. James Nicholson, Secretary of the Department of Veterans Affairs, concerning the VA's budget request for fiscal year 2008.

SUMMARY OF COMMITTEE RECOMMENDATION

The Committee recommends $87,501,280,000 for the Department of Veterans Affairs, including $44,487,250,000 in mandatory spending and $43,014,030,000 in discretionary spending. The amount provided for discretionary activities represents an increase of $6,534,846,000 above the fiscal year 2007 enacted level, excluding emergency supplemental funding, and an increase of $3,597,529,000 above the budget request.

DEPARTMENT OVERVIEW

The Veterans Administration was established as an independent agency by Executive Order 5398 of July 21, 1930, in accordance with the Act of July 3, 1930 (46 Stat. 1016). This act authorized the President to consolidate and coordinate Federal agencies especially created for or concerned with the administration of laws providing benefits to veterans, including the Veterans' Bureau, the Bureau of Pensions, and the National Home for Disabled Volunteer Soldiers. On March 15, 1989, the Veterans Administration was elevated to Cabinet-level status as the Department of Veterans Affairs [VA].

The VA's mission is to serve America's veterans and their families as their principal advocate in ensuring they receive the care, support, and recognition they have earned in service to the Nation. On September 30, 2006, there were an estimated 24 million living veterans, with 23.9 million of them residing in the United States and Puerto Rico. There were an estimated 36.6 million dependents (spouses and dependent children) of living veterans in the United States and Puerto Rico. There were over 538,000 survivors of deceased veterans receiving VA survivor benefits in the United States and Puerto Rico. Thus, more than 61 million people, or 20 percent of the total estimated resident population of the United States and Puerto Rico were recipients, or potential recipients of veterans' benefits from the Federal Government. The VA's operating units in-

clude the Veterans Benefits Administration, Veterans Health Administration, National Cemetery Administration, and staff support offices.

The Veterans Benefits Administration [VBA] provides an integrated program of non-medical veteran benefits. The VBA administers a broad range of benefits to veterans and other eligible beneficiaries through 57 regional offices and the records processing center in St. Louis, Missouri. The benefits provided include: compensation for service-connected disabilities; pensions for wartime, needy, and totally disabled veterans; vocational rehabilitation assistance; educational and training assistance; home buying assistance; estate protection services for veterans under legal disability; information and assistance through personalized contacts; and six life insurance programs.

The Veterans Health Administration [VHA] develops, maintains, and operates a national healthcare delivery system for eligible veterans; carries out a program of education and training of healthcare personnel; carries out a program of medical research and development; and furnishes health services to members of the Armed Forces during periods of war or national emergency. A system of 155 hospitals, 925 outpatient clinics, 135 nursing homes, and 45 VA domiciliary residential rehabilitation treatment programs is maintained to meet the VA's medical mission.

The National Cemetery Administration provides for the interment of the remains of eligible deceased servicepersons and discharged veterans in any national cemetery with available grave space; permanently maintains these graves; provides headstones and markers for the graves of eligible persons in national and private cemeteries; administers the grant program for aid to States in establishing, expanding, or improving State veterans' cemeteries; and provides certificates to families of deceased veterans recognizing the veterans' contributions and service to the Nation. The National Cemetery Administration includes 158 cemeterial installations and activities.

Other VA offices include the General Counsel, Inspector General, Boards of Contract Appeals and Veterans Appeals, and the general administration, which supports the Secretary, Deputy Secretary, Under Secretary for Benefits, Under Secretary for Health, and the Under Secretary for Memorial Affairs.

Legislative Initiatives.—The Committee is pleased to note that the VA, for the first time in 5 years, did not predicate its fiscal year 2008 budget request on a proposal to impose new fees and increased co-payments on veterans for medical services and prescription medicines. This is an issue which is clearly in the purview of the authorizing committee, and is not an appropriations issue. The Committee has repeatedly denied such budget assumptions in the past and commends the VA for following its guidance in developing the fiscal year 2008 budget request, which assumes no revenue from fees that have not been passed into law. The Committee does note that the VA will transmit a fee proposal to Congress for consideration separately from the budget request.

VA Medical Facilities.—The Committee is seriously concerned about the deplorable conditions that were found at the outpatient facilities of the Defense Department's Walter Reed Army Medical

Center. Therefore, the Committee is carefully monitoring the VA health care system to ensure that any such deficiencies in VA medical centers are identified and dealt with promptly and efficiently. The Committee provided $950,907,000 in the fiscal year 2007 supplemental funding bill for maintenance, improvements and for minor construction at VA medical care facilities, and recommends $1,018,002,000 over the President's budget request for fiscal year 2008 to continue to address maintenance deficiencies and minor construction needs throughout the system. The Committee continues to be concerned with the VA's practice of withholding non-recurring maintenance funds until the last quarter of the fiscal year. A recently published Government Accountability Office [GAO] report found that the VA waited until September 2006 to obligate about $248,000,000—almost 60 percent—of non-recurring maintenance funding, despite the fact that the Office of Management and Budget apportions this funding quarterly. The GAO notes that extensive year-end spending can place government programs at risk for waste. Further, the GAO found that VA headquarters lacks the ability to monitor individual maintenance projects among the 21 Veterans Integrated Service Networks [VISN]. Specifically, VA headquarters does not have access to the financial information system that VISN regional offices use to track the status of individual non-recurring maintenance projects. The VA is required to report quarterly on expenditure of funds in this account and has begun to include the balance of non-recurring maintenance funding in the quarterly financial status reports. The Committee strongly encourages the Department to continue doing this. The Committee directs the Secretary to report back to the Committee by January 15, 2008, on steps the VA is undertaking to better track non-recurring maintenance projects and expenditures at the VISN level. Additionally, the Committee has included bill language restricting to 20 percent the amount of funding the VA can obligate in the last 2 months of the fiscal year.

Budget Projections.—The Committee is deeply concerned about the long-term impacts the wars in Iraq and Afghanistan will have on VA's ability to deliver timely, high quality health care. In the first 6 months of fiscal year 2007, VA treated nearly 124,000 OEF and OIF patients. This is a 29 percent increase over the same time period in fiscal year 2006. Coupled with the general aging veteran population and the increased usage of long-term care, the VA is facing a pending crisis within the system. There appears to be a disconnect between substantial increases for veterans health care provided by Congress and the administration's future budget projections. The Historical Tables accompanying the fiscal year 2008 Budget Submission for the U.S. Government show a flat line for veterans health care through 2012. The Committee understands that actuarial models can fluctuate year to year; however, given increasing medical inflation, it seems illogical that the administration believes spending on veterans' health care will remain frozen over the next 5 years. While the budget request is constructed year-to-year and the Historical Tables are merely projections, the VA must have a better blueprint on out-year costs in order to efficiently and effectively build capacity to meet future demand. The Committee directs the Department to conduct a study of future

needs of health care for the next 10 years and provide the report to the Committee on Appropriations by March 21, 2008.

Waiting Times.—The Committee remains committed to ensuring that the VA decrease the time it takes for veterans to schedule health care appointments and have their benefits claims processed. In order to reduce the waiting times for health care appointments, the VA has instituted the Advanced Clinical Access Initiative. Through the second quarter of fiscal year 2007, the VA reported that 96 percent of primary care appointments were scheduled within 30 days of the desired date; 94 percent of specialty care appointments were scheduled within 30 days of the desired date; and, 74.5 percent of new patient appointments were scheduled within 30 days of the desired date. While the VA has made significant strides over the past 4 years to reduce the waiting times, more needs to be done. The Committee is concerned that these statistics may not accurately reflect actual experiences, based on anecdotal reports of appointments made and then cancelled. Therefore, the Committee directs the Department to submit a report to the Committee on Appropriations by March 21, 2008, on the policy, procedures and guidance issued to the field on reducing appointment waiting times.

Services for Women Veterans.—The Committee remains dedicated to ensuring that the needs of women veterans are met. In 1994 the VA established the Center for Women Veterans. The mission of the Center for Women Veterans is to ensure that women veterans have access to VA benefits and services on par with male veterans and to ensure that VA programs are responsive to the gender-specific needs of women veterans. The VA must be prepared to handle the increasing number of women who are choosing the military as a career. Therefore, the Committee directs the VA to report to the Committee on Appropriations by March 7, 2008, on outreach efforts the VA is undertaking to ensure that women veterans are duly informed of the services they have earned through their service. Additionally, the Committee directs that future outreach efforts detail the types of specific health care services, including readjustment counseling, offered to women veterans.

Arizona Veterans Museum.—The Committee encourages the Department of Veterans Affairs to provide assistance, where appropriate, to the Arizona Office of Veterans Services in its efforts to provide community education and display military artifacts from Arizona State Veterans' Organizations.

VETERANS BENEFITS ADMINISTRATION

Appropriations, 2007	$41,440,411,000
Budget estimate, 2008	44,642,822,000
Committee recommendation	44,642,822,000

ADMINISTRATION OVERVIEW

The Veterans Benefits Administration [VBA] is responsible for the payment of compensation and pension benefits to eligible service-connected disabled veterans. This administration also provides education benefits and housing loan guarantees.

COMMITTEE RECOMMENDATION

The Committee recommends $44,642,822,000 for the Veterans Benefits Administration. This amount is composed of $41,236,322,000 for "Compensation and pensions"; $3,300,289,000 for "Readjustment benefits"; $41,250,000 for "Veterans insurance and indemnities"; $17,389,000 for the "Veterans housing benefit program fund program account", with $108,000,000 in credit subsidies and $154,562,000 for administrative expenses; $71,000 for the "Vocational rehabilitation loans program account" and $311,000 for administrative expenses; and $628,000 for the "Native American veteran housing loan program account".

COMPENSATION AND PENSIONS

(INCLUDING TRANSFER OF FUNDS)

Appropriations, 2007	$38,007,095,000
Budget estimate, 2008	41,236,322,000
Committee recommendation	41,236,322,000

PROGRAM DESCRIPTION

Compensation is payable to living veterans who have suffered impairment of earning power from service-connected disabilities. The amount of compensation is based upon the impact of disabilities on a veteran's earning capacity. Death compensation or dependency and indemnity compensation is payable to the surviving spouses and dependents of veterans whose deaths occur while on active duty or result from service-connected disabilities. A clothing allowance may also be provided for service-connected veterans who use a prosthetic or orthopedic device.

Pensions are an income security benefit payable to needy wartime veterans who are precluded from gainful employment due to non-service-connected disabilities which render them permanently and totally disabled. Public law 107–103, the Veterans Education and Benefits Expansion Act of 2001, restored the automatic presumption of permanent and total non-service connected disability for purposes of awarding a pension to veterans age 65 and older, subject to the income limitations that apply to all pensioners. Death pensions are payable to needy surviving spouses and children of deceased wartime veterans. The rate payable for both disability and death pensions is determined on the basis of the annual income of the veteran or their survivors.

COMMITTEE RECOMMENDATION

The Committee recommends $41,236,322,000 for "Compensation and pensions". This is an increase of $3,229,227,000 above the fiscal year 2007 enacted level and the same as the budget request. The amount includes funds for a projected fiscal year 2008 cost-of-living increase of 1.4 percent for pension recipients.

The appropriation includes $28,583,000 in payments to the "General operating expenses" and "Medical administration" accounts for expenses related to implementing provisions of the Omnibus Budget Reconciliation Act of 1990, the Veterans' Benefits Act of 1992, the Veterans' Benefits Improvements Act of 1994, and the Veterans' Benefits Improvements Act of 1996.

Claims Processing.—The Committee remains extremely concerned with the VA's ability to adjudicate claims in a timely and efficient manner. New claims receipts have grown by 39 percent from 2000 to 2006. The average wait time for a veteran's claim to be processed is 177 days, almost 6 months, and the Department has a current backlog of almost 400,000 claims. Additionally, the complexity of adjudicating the claims is estimated to grow as veterans are documenting a greater number of disabilities, such as Post Traumatic Stress Disorder [PTSD] and complex combat injuries. In order to address these serious problems, the Committee provided in fiscal year 2007 an additional $60,750,000 in supplemental funding. For fiscal year 2008, the Committee recommends for VBA's General Operating Expense account an additional $130,750,000 above the President's budget request. The Committee encourages the Department to place as a priority the integration of technology that will further streamline the benefits claims process. In Public Law 110–28, the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007, Congress included by reference a reporting requirement directing the VA to submit a report on the number of new hires for claims processing in fiscal year 2007 and projections for 2008, the attrition rate for claims examiners, the projected productivity per FTE, the productivity by Veterans Integrated Service Network (VISN), and the plan to leverage new technology to create a more efficient system. As a follow on to this report, the Committee directs the Department to provide this information by regional office rather than by VISN.

READJUSTMENT BENEFITS

Appropriations, 2007	$3,262,006,000
Budget estimate, 2008	3,300,289,000
Committee recommendation	3,300,289,000

PROGRAM DESCRIPTION

The "Readjustment benefits" appropriation finances the education and training of veterans and servicepersons whose initial entry into active duty took place on or after July 1, 1985. These benefits are included in the All-Volunteer Force Educational Assistance Program (Montgomery GI bill) authorized under 38 U.S.C. section 30. Eligibility to receive this assistance began in 1987. Basic benefits are funded through appropriations made to the readjustment benefits appropriation and transfers from the Department of Defense. This account also finances vocational rehabilitation, specially adapted housing grants, automobile grants with the associated approved adaptive equipment for certain disabled veterans, and educational assistance allowances for eligible dependents of those veterans who died from service-connected causes or have a total permanent service-connected disability, as well as dependents of servicepersons who were captured or missing in action.

COMMITTEE RECOMMENDATION

The Committee recommends $3,300,289,000 for "Readjustment benefits". This is an increase of $38,283,000 above the fiscal year 2007 enacted level and the same as the budget request.

VETERANS INSURANCE AND INDEMNITIES

Appropriations, 2007	$49,850,000
Budget estimate, 2008	41,250,000
Committee recommendation	41,250,000

PROGRAM DESCRIPTION

The "Veterans insurance and indemnities" appropriation consists of the former appropriations for military and naval insurance, applicable to World War I veterans; National Service Life Insurance, applicable to certain World War II veterans; Servicemen's indemnities, applicable to Korean conflict veterans; and veterans mortgage life insurance to individuals who have received a grant for specially adapted housing.

COMMITTEE RECOMMENDATION

The Committee recommends $41,250,000 for "Veterans insurance and indemnities". This is a decrease of $8,600,000 below the fiscal year 2007 enacted level and the same as the budget request. The Department estimates there will be 7,149,360 policies in force in fiscal year 2008 with a value of $1,116,486,000,000.

VETERANS HOUSING BENEFIT PROGRAM FUND PROGRAM ACCOUNT

	Program account	Administrative expenses
Appropriations, 2007	$66,234,000	$154,284,000
Budget estimate, 2008	17,389,000	154,562,000
Committee recommendation	17,389,000	154,562,000

PROGRAM DESCRIPTION

This appropriation provides for all costs, with the exception of the "Native American veteran housing loan program" and the "Guaranteed transitional housing loans for homeless veterans program", of the VA's direct and guaranteed housing loans, as well as the administrative expenses to carry out these programs.

VA loan guaranties are made to service members, veterans, reservists and unremarried surviving spouses for the purchase of homes, condominiums, manufactured homes and for refinancing loans. VA guarantees part of the total loan, permitting the purchaser to obtain a mortgage with a competitive interest rate, even without a downpayment, if the lender agrees. The VA requires that a downpayment be made for a manufactured home. With a VA guaranty, the lender is protected against loss up to the amount of the guaranty if the borrower fails to repay the loan.

COMMITTEE RECOMMENDATION

The Committee recommends such sums as may be necessary for funding subsidy payments, estimated to total $17,389,000; and $154,562,000 for administrative expenses for fiscal year 2008. Bill language limits gross obligations for direct loans for specially-adapted housing to $500,000.

VOCATIONAL REHABILITATION LOANS PROGRAM ACCOUNT

	Program account	Administrative expenses
Appropriations, 2007	$53,000	$305,000
Budget estimate, 2008	71,000	311,000
Committee recommendation	71,000	311,000

PROGRAM DESCRIPTION

This appropriation covers the funding subsidy cost of direct loans for vocational rehabilitation of eligible veterans and, in addition, it includes administrative expenses necessary to carry out the direct loan program. Loans of up to $1,016 (based on the indexed chapter 31 subsistence allowance rate) are available to service-connected disabled veterans enrolled in vocational rehabilitation programs, as provided under 38 U.S.C. chapter 31, when the veteran is temporarily in need of additional assistance. Repayment is made in 10 monthly installments, without interest, through deductions from future payments of compensation, pension, subsistence allowance, educational assistance allowance, or retirement pay. Over 99 percent of loans are repaid in full in less than 1 year.

COMMITTEE RECOMMENDATION

The Committee recommends $71,000 for program costs and $311,000 for administrative expenses for the "Vocational rehabilitation loans program account". The administrative expenses may be transferred to and merged with the "General operating expenses" account. Bill language is included limiting program direct loans to $3,287,000. It is estimated that the VA will make 4,349 loans in fiscal year 2008, with an average amount of $756.

NATIVE AMERICAN VETERAN HOUSING LOAN PROGRAM ACCOUNT

Appropriations, 2007	$584,000
Budget estimate, 2008	628,000
Committee recommendation	628,000

PROGRAM DESCRIPTION

The Native American Veteran Housing Loan Program is authorized by 38 U.S.C. chapter 37, section 3761 to provide direct loans to Native American veterans living on trust lands. The loans are available to purchase, construct, or improve homes to be occupied as veteran residences. The principal amount of a loan under this authority is limited to the Federal Home Loan Mortgage Corporation's single-family conventional conforming loan limit. Veterans pay a funding fee of 1.25 percent of the loan amount but veterans with service-connected disability are exempt from paying the fee. Before a direct loan can be made, the veteran's tribal organization must sign a Memorandum of Understanding with the VA regarding the terms and conditions of the loan. The Native American Veteran Housing Loan Program began as a pilot program in 1993 and was made permanent by Public Law 109–233, the Veterans Housing Opportunity and Benefits Act of 2006.

COMMITTEE RECOMMENDATION

The Committee recommends $628,000 for administrative expenses associated with this program. This is $44,000 above the fiscal year 2007 enacted level and the same as the budget request.

GUARANTEED TRANSITIONAL HOUSING LOANS FOR HOMELESS VETERANS PROGRAM ACCOUNT

PROGRAM DESCRIPTION

This program was established by Public Law 105–368, the Veterans Programs Enhancement Act of 1998. The program is a pilot project designed to expand the supply of transitional housing for homeless veterans and to guarantee up to 15 loans with a maximum aggregate value of $100,000,000. The project must enforce sobriety standards and provide a wide range of supportive services such as counseling for substance abuse and development of job readiness skills.

COMMITTEE RECOMMENDATION

All funds authorized for the "Guaranteed transitional housing loans for homeless veterans program account" have been appropriated. Therefore, additional appropriations are not required. Administrative expenses of the program, limited to $750,000 for fiscal year 2008, will be borne by the "Medical services" and "General operating expenses" accounts.

VETERANS HEALTH ADMINISTRATION

Appropriations, 2007 [1]	$32,679,735,000
Budget estimate, 2008	34,612,671,000
Committee recommendation	37,213,220,000

[1] Excludes $1,344,278,000 in emergency supplemental funding included in Public Law 110–28.

ADMINISTRATION OVERVIEW

The Department of Veterans Affairs operates the largest Federal medical care delivery system in the country, with 155 hospitals, 45 VA domiciliary residential rehabilitation treatment programs, 135 nursing homes, and 925 outpatient clinics, which include independent, satellite, community-based, and rural outreach clinics.

The Department of Veterans Affairs "Medical care collections fund" [MCCF] was established by the Balanced Budget Act of 1997 (Public Law 105–33). In fiscal year 2004, Public Law 108–199 allowed the Department to deposit first-party and pharmacy co-payments; third-party insurance payments and enhanced use collections; long-term care co-payments; Compensated Work Therapy Program collections; Compensation and Pension Living Expenses Program collections; and Parking Program fees into the MCCF.

The Parking Program provides funds for the construction, alteration, and acquisition (by purchase or lease) of parking garages at VA medical facilities authorized by 38 U.S.C. section 8109. The Secretary is required under certain circumstances to establish and collect fees for the use of such garages and parking facilities. Receipts from the parking fees are to be deposited into the MCCF and are used for medical services activities.

COMMITTEE RECOMMENDATION

The Committee recommends $37,213,220,000 for the Veterans Health Administration, without collections. This amount is composed of $28,979,220,000 for Medical services; $3,642,000,000 for Medical administration; $4,092,000,000 for Medical facilities; and $500,000,000 for Medical and prosthetic research. Medical care collections are expected to be $2,414,000,000. Therefore, VHA will have total resources of $39,627,220,000, plus any carryover from fiscal year 2007, available in fiscal year 2008.

AREAS OF INTEREST

Age Related Hearing Loss.—The Committee recognizes the incidence and severity of hearing loss due to faulty sensory nerves, known as sensorineural hearing loss, and that its associated costs are increasing at dramatic rates. Currently, there are no approved therapeutics that either prevent or treat sensorineural hearing loss, a leading and costly cause of disability within the VA system. The Committee encourages the VA to examine and support the development and clinical testing of therapeutics aimed at preventing and treating, sensorineural, age-related, noise-induced and drug-induced hearing loss.

VA Nursing Academy.—The Committee commends VA for addressing the nursing shortage through the Veterans Affairs Nursing Academy. This 5-year pilot program will establish partnerships with competitively selected nursing schools to expand the number of teaching faculty in VA facilities and affiliated nursing schools in order to increase student enrollment in baccalaureate nursing programs.

The Committee urges VA to continue its collaboration with the Department of Defense through the Uniformed Services University of the Health Services [USUHS] by providing nurse faculty and nursing students in the graduate nursing education programs.

Advanced Nursing Education.—The Committee urges the Department of Veterans Affairs, in conjunction with accredited schools of nursing, to explore the development of a fast-track doctoral training program which would facilitate completion of a doctorate (Ph.D.) in nursing by qualified nurses employed within the VA network who possess their bachelor of science in nursing.

Lung Cancer Screening.—The Committee encourages the Secretary of Veterans Affairs to institute a pilot program for lung cancer screening, early diagnosis and treatment among high risk veteran populations to be coordinated and partnered with the International Early Lung Cancer Action Program and its member institutions and with the designated sites of the National Cancer Institute's Lung Cancer Specialized Programs of Research Excellence. The Department shall report back to the Committee on Appropriations within 90 days of enactment of this act, on the viability and plans to institute a program of this nature.

Contract Care.—The Committee directs the Secretary to submit a report to the Committee on Appropriations within 60 days after the enactment of this act, regarding the existing conditions and criteria used for contracting with civilian rehabilitation providers, and current outreach efforts to inform OEF/OIF veterans and those who

advocate on their behalf about such conditions, criteria, and treatment options.

Center for America's Veterans.—The Committee notes the establishment of the G.V. "Sonny" Montgomery National Center for America's Veterans and urges the Department to partner with the Center in education and outreach programs for veterans and in the establishment of a social and policy research center on veterans' affairs.

USOC Paralympic Military Program.—The Committee fully supports the Department of Veterans Affairs' U.S. Olympic Committee Paralympic Military Program, which assists service members through their recovery and allows participants to take part in USOC Paralympic Military Sports Camps, a Veteran's Paralympic Performance Program, and individualized Veteran's Performance Programs. The Committee encourages the Department to continue its collaboration with DOD to provide training and technical assistance to program participants at VA medical centers.

MEDICAL SERVICES

(INCLUDING TRANSFER OF FUNDS)

Appropriations, 2007 [1]	$25,518,254,000
Budget estimate, 2008	27,167,671,000
Committee recommendation	28,979,220,000

[1] Excludes $466,788,000 in emergency supplemental funding included in Public Law 110–28.

PROGRAM DESCRIPTION

The "Medical services" account provides for medical services of enrolled eligible veterans and certain dependent beneficiaries in VA medical centers, outpatient clinic facilities, contract hospitals, State homes, and outpatient programs on a fee basis. Hospital and outpatient care is also provided by the private sector for certain dependents and survivors of veterans under the civilian health and medical programs for the VA.

COMMITTEE RECOMMENDATION

The Committee recommends $28,979,220,000 for "Medical services". This amount is an increase of $3,460,966,000 over the fiscal year 2007 enacted level, excluding emergency supplemental funding, and $1,811,549,000 above the budget request. In addition, the VA has the authority to retain co-payments and third-party collections, estimated to total $2,414,000,000 in fiscal year 2008.

The Committee has included bill language to make available through September 30, 2009, up to $1,350,000,000 of the "Medical services" appropriation. This provides flexibility to the Department of Veterans Affairs as it continues to implement significant program changes.

Public Law 110–5, the Continuing Appropriations Resolution, 2007, was signed by the President on February 15, 2007, causing a large sum of funds to begin to flow into the VA more than halfway through the second quarter of the fiscal year making it difficult to execute the VA's budget. Thus the Committee has increased the amount of 2-year availability of fiscal year 2008 funds by $250,000,000 over fiscal year 2007.

The bill includes language to allow for the transfer of $15,000,000 to the DOD/VA Health Care Sharing Incentive Fund. The Fund provides a mechanism for the DOD and VA to increase their resource sharing activities to achieve cost effective use of health care services.

The fiscal year 2008 budget request for Medical Services reflects a realignment of 5,689 full-time equivalent and $400,000,000 from the Medical Facilities account into Medical Services. Costs incurred for hospital food service workers, provisions and related supplies are for the direct care of patients. The Committee supports this realignment and has provided funding for food service costs under this account. Additionally, the recommendation also reflects the VA's transfer of 609 FTE and $58,000,000 from the Medical Services account to the Information Technology Systems account.

Level 1 Polytrauma.—Congress provided $30,000,000 in Public Law 110–28, the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Act, 2007, to establish at least one new Level 1 Polytrauma Center. In addition, Congress also provided $9,440,000 for the establishment of polytrauma residential transitional rehabilitation programs, $8,000,000 for polytrauma support clinic teams, and $5,356,000 for additional polytrauma points of contact. Clearly Congress is fully supportive of the Department's efforts in this highly successful initiative.

The Department of the Army is planning to invest over $1,100,000,000 in the next 5 years to consolidate its medical facilities at locations with the largest concentration of active duty service personnel. When deciding where to establish a new polytrauma center, the Committee directs the Department of Veterans Affairs to evaluate the potential benefits of co-locating it with an Army facility.

Mental Health/Post Traumatic Stress Disorder/Traumatic Brain Injury.—The ability of the VA to provide timely and effective mental health services is crucial for the readjustment of veterans. In Public Law 110–28, the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007, Congress provided $100,000,000 in supplemental funding for the VA to bolster capacity in the delivery of mental health services. In many underserved areas of the country, Community Mental Health Centers are a key resource for the delivery of mental health services. The Committee strongly supports the opening of VA outpatient clinics in underserved locations and urges the VA to continue opening these clinics expeditiously. However, concern regarding mental health services in these areas remains. The Committee encourages the VA to establish a training program for OEF/OIF veterans to assist in providing peer support services and outreach. Additionally, the Committee directs the Department to report to the Committee on Appropriations on its plan to better utilize services of Community Mental Health Centers and the implementation of peer training programs, while the Department continues to implement the opening of VA outpatient clinics.

The Committee directs the Department to make efficient and timely delivery of mental health services a top priority. Moreover, the Committee is concerned that the fiscal year 2008 budget request includes a reduction in inpatient psychiatric care. While in-

patient treatment is not optimal in every case for the treatment of mental health disorders, it is nonetheless key to treatment in many cases. Therefore, within the increase provided under Medical Services, the Committee directs the Department to reexamine the policy for a reduction in psychiatric inpatient care, taking into account the needs of returning OEF/OIF veterans. The Department is directed to report to the Committee by February 29, 2008, the finding of this review and what additional resources have been utilized to ensure that adequate inpatient care is available. Further, the Committee directs the VA not to reduce the number of inpatient beds at any facility that currently has a waiting list.

As media reports have highlighted, Traumatic Brain Injury [TBI] has become one of the signature wounds of Operation Enduring Freedom and Operation Iraqi Freedom. In many instances, these wounds are not readily apparent as there is often no outward sign of trauma, with symptoms ranging from mild to disabling. It is imperative that the VA be able to effectively diagnose, treat, and rehabilitate those suffering from this injury. As was evidenced by the additional funding for polytrauma included in Public Law 110–28, the Committee is deeply committed to providing the VA the resources it requires to treat not only those veterans enrolled in the health care system, but all wounded soldiers being treated in VA hospitals and polytrauma centers. Within the increase for Medical Services, the Committee recommends additional funding for the treatment of Traumatic Brain injury. Further, the Committee believes that the VA should begin to track all TBI cases and directs that future budget submissions include an estimated cost for treatment within the Medical Services budget justification.

The National Center for Post Traumatic Stress Disorder was created in 1989 within the Department of Veterans Affairs in response to a congressional mandate carried in Public Law 98–528 to address the needs of veterans with military-related post traumatic stress disorder [PTSD]. The mandate called for a center of excellence that would set the agenda for research and education on PTSD without direct responsibility for patient care. The VA determined that no single VA site could adequately serve this unique mission and established the Center as a consortium of divisions. The Center currently consists of 7 divisions. The National Center for PTSD is an integral component of the Veterans Health Administration's Office of Mental Health Services. In fiscal year 2006, the Department of Veterans Affairs allocated $9,800,000, and in fiscal year 2007 has allocated $10,100,000 to support the research and education associated with the Center. The fiscal year 2008 budget request includes only pay raise and inflationary increases for the Center. The Committee is extremely concerned that resources to support this important mission have been inadequate. At a time when independent and Government experts in the area of PTSD are warning of the likelihood that large numbers of returning combat troops from Iraq and Afghanistan are suffering from mental disorders and PTSD, it seems illogical for the budget of the Center to remain flat. Therefore, within the increase for Medical Services, the Committee strongly encourages the Department to increase the budget for the Center in order to enhance the availability of educational outreach programs and research into the area of PTSD, to

further the understanding and treatment of this serious mental disorder. Further, the Committee directs the Department to submit a report to the Committee on Appropriations by November 12, 2007, detailing what increases have been made to the Center.

Blind Rehabilitative Service.—The VA's Blind Rehabilitative Service is known worldwide for its excellence in delivering comprehensive blind rehabilitation to our Nation's blind veterans at 10 VA Blind Rehabilitation Centers. On July, 22, 2004, GAO testified before Congress that more outpatient services for blind veterans and better outpatient training could better meet the demands of today's blind veteran population. Since 1940, the VA has focused its training and treatment at inpatient facilities. While the VA should continue to support and maintain its inpatient capacity at its Blind Rehabilitation Centers, it should also begin to expand its treatment for blind veterans through outpatient services closer to where veterans live. The Committee recommends an increase of $10,000,000 for the VA to continue implementing a plan to expand more outpatient blind rehabilitation services and training consistent with the recommendations of the GAO report: "More Outpatient Rehabilitation Services for Blind Veterans Could Better Meet their Needs" (GAO–04–996T); the conclusions of the VA's Office of Finance and Allocation Resource Center; and the recommendations of the VA's Visual Impairment Advisory Board [VIAB]. The full continuum of outpatient blind and low vision rehabilitation services will include Visual Impairment Services Outpatient Rehabilitation [VISOR], Blind Rehabilitation Specialists, and Visual Impairment Center to Optimize Remaining Sight [VICTORS].

The Committee is concerned that the number of Blind Rehabilitation Outpatient Specialists is inadequate to fully meet the needs of blind veterans, particularly in rural or remote areas of the country. The Committee urges VA to develop a plan to increase the number of these specialists in geographically diverse and underserved areas.

Readjustment Counseling.—The Committee recognizes the increased and ongoing pressures facing military families, and believes it is important to take a proactive, preemptive approach in helping veterans, particularly those in the National Guard and Reserves, and their families, adjust to deployments and the transition home after the battlefield. Vet Centers serve as the front line for many veterans and their families. A Defense Department program has been developed that has been successfully utilized by Army families, which focuses on goals, family strengthening, and communication as tools to deal with stressful situations. The program can be successfully facilitated by Vet Center staff and can help veterans and their families to deal with both the transition from active duty to civilian life and the call up to active duty for National Guard and Reserve personnel. The Committee encourages VA to look at the Defense Department program and consider applying it to the veteran population.

The VA's fiscal year 2008 budget request for Vet Centers is $114,822,000. An additional $20,000,000 in emergency supplemental funds was provided in Public Law 110–28 for the establishment of new Vet Centers and to increase staffing to reduce wait times. The Committee strongly supports the services provided by

Vet Centers and their mission. Therefore, the Committee recommends an additional $15,000,000 for Vet Centers in fiscal year 2008. Further, the Committee directs the Department to report back to the Committee by March 31, 2008, on the number of Vet Centers opened, the staffing levels by Vet Center, and the current waiting times at all Vet Centers.

Veteran Access to Health Care.—Adequate access to VA medical facilities is essential to delivering medical care to our Nation's veterans. Unfortunately, too many of our veterans in both urban and rural areas lack transportation services to and from VA medical facilities. The VA can offer the best medical care in the world, yet it does a patient no good if they can't get to the facility. Therefore, the Committee directs the Department to study the feasibility of establishing a transportation pilot program aimed at improving access to medical facilities. The Department should report the results of the feasibility study, an implementation plan, and projected costs associated with such a pilot program, to the Committee on Appropriations no later than February 1, 2008.

Homeless Veterans.—The Committee fiscal year 2008 budget request includes $107,180,000 for the Homeless Provider Grant and Per Diem Program. VA's Homeless Providers Grant and Per Diem Program is offered annually by the Department of Veterans Affairs Health Care for Homeless Veterans [HCHV] Programs to fund community agencies providing services to homeless veterans. The purpose is to promote the development and provision of supportive housing and/or supportive services with the goal of helping homeless veterans achieve residential stability, increase their skill levels and/or income, and obtain greater self-determination. Within the increase for Medical Services, the Committee directs the Department to fund the program at the fully authorized level of $130,000,000.

The HUD-Veterans Affairs Supportive Housing Program is a joint-supported housing program with the Department of Housing and Urban Development [HUD] which provides permanent housing and ongoing treatment services to homeless, mentally ill veterans and those suffering from substance abuse disorders. Under the program, the VA screens homeless veterans for program eligibility and provides case management services to enrollees. Rental subsidy vouchers are allocated by HUD to the VA, which in turn distributes the vouchers to the veteran enrollees. The Committee strongly supports this program. Should HUD increase the number of vouchers offered, the VA is directed to increase funding for this program by at least $20,000,000 to hire additional case workers.

Sleep Apnea.—The prevalence of Obstructive Sleep Apnea [OSA] in veterans is reported to be four times greater than in the general population. Of the 600,000 enrolled veterans possibly at risk, only 30,000 VA patients have a definitive diagnosis of OSA. Yet, untreated sleep apnea patients incur large hospitalization costs. Additional attention is needed by VA to ensure that VA is at the forefront of treatment and evaluation for OSA.

Epilepsy.—The Committee is concerned that the Veterans Health Administration may not have an adequate national program for researching, diagnosing, and treating epilepsy. A large number of OEF/OIF veterans are likely to confront epilepsy, as it is a common

consequence of traumatic brain injury [TBI]. The need for substantial investment in epilepsy research is greater now than ever before. The Committee supports the revitalization of VA's Epilepsy Centers of Excellence as an integral component of VA's efforts to address the long-term health care needs of veterans with TBI.

Diabetes.—The Committee is encouraged by the Department's work on diabetes and obesity. Twenty percent of the veteran population is affected by this disease. The Committee encourages the Department of Veterans Affairs to continue this important work and expand on its public-private partnerships in the area of nutrition, diabetes, obesity and health-oriented research.

Post Traumatic Stress Disorder Treatment.—The Committee is aware of the devastating impacts of combat stress and related mental health conditions on returning OEF/OIF veterans. In order to better support veterans with post-traumatic conditions the VA is encouraged to improve cooperation with existing VA health care units currently undertaking new treatment methods.

HIV/AIDS Among Veterans.—The Committee is concerned that the VA health care system's HIV testing policy guidelines are preventing early diagnosis of HIV/AIDS among our Nation's veterans, particularly among minority veterans. The Committee strongly recommends that VA consider changing its HIV testing guidelines to concur with the Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Healthcare Settings issued in September 2006, and any subsequent policy changes made to these recommendations, by the U.S. Centers for Disease Control and Prevention [CDC]. The Committee requests a progress report by January 30, 2008.

MEDICAL ADMINISTRATION

Appropriations, 2007[1]	$3,177,968,000
Budget estimate, 2008	3,442,000,000
Committee recommendation	3,642,000,000

[1] Excludes $250,000,000 in emergency supplemental funding provided in Pubic Law 110–28.

PROGRAM DESCRIPTION

The "Medical administration" account provides funds for the expenses of management, security, and administration of the VA health care system. This appropriation provides for costs associated with the operation of the VA medical centers; other facilities; and VHA headquarters; plus the costs of VISN offices and facility director offices; chief of staff operations; quality of care oversight; legal services; billing and coding activities; procurement; financial management; and human resource management.

COMMITTEE RECOMMENDATION

The Committee recommends $3,642,000,000 for "Medical administration". This amount is an increase of $464,032,000 over the fiscal year 2007 enacted level and an increase of $200,000,000 above the budget request. The Committee has increased funding for Medical administration to ensure that adequate staffing levels are in place to manage the health care system given the increase in medical service delivery. Additionally, the funding increase should be sufficient to ensure that large transfers from the Medical Services

account to the Medical administration account are not needed in fiscal year 2008.

The Committee has included bill language to make available through September 30, 2009, up to $250,000,000 of the "Medical administration" appropriation.

MEDICAL FACILITIES

Appropriations, 2007 [1]	$3,569,533,000
Budget estimate, 2008	3,592,000,000
Committee recommendation	4,092,000,000

[1] Excludes $595,000,000 in emergency supplemental funding included in Public Law 110–28.

PROGRAM DESCRIPTION

The "Medical facilities" account provides funds for the operation and maintenance of the VA healthcare system's vast capital infrastructure. This appropriation provides for costs associated with utilities, engineering, capital planning, leases, laundry, groundskeeping, housekeeping, facility repair, and property disposition and acquisition.

The Committee has included bill language to make available through September 30, 2009, up to $350,000,000 of the medical facilities appropriation. This provision provides flexibility to the Department as it continues to implement significant program changes.

COMMITTEE RECOMMENDATION

The Committee recommends $4,092,000,000 for "Medical facilities". This amount is $522,467,000 above the fiscal year 2007 enacted level and $500,000,000 above the budget request. The Committee has provided a substantial increase above the budget request for the medical facilities account. This reflects the Committee's ongoing commitment to ensuring that VA medical facilities are maintained at the highest possible level. The additional funds provided in the Committee recommendation are to be used for nonrecurring maintenance at existing facilities, as identified in facility condition accessment reports. Additionally, these funds are to be allocated in a manner not subject to the Veterans Equitable Resource Allocation.

The Committee recommendation also reflects the transfer of 5,689 positions and $400,000,000 for food service operations from the Medical Facilities appropriation to the Medical Services appropriation.

Community Based Outpatient Clinics [CBOC].—Veterans access to VA health care facilities needs to be the top priority for the VHA. The Committee remains deeply concerned about the lack of accessible VA health care services in many rural areas of the Nation. The Committee notes the Department's plans to open 23 new community-based outpatient clinics in fiscal year 2007 and 15 new CBOCs in fiscal year 2008. The Committee strongly supports the role CBOCs play in outreach and improved health care delivery to veterans living in rural and underserved areas. The Committee directs the Department to continue expediting the opening of new CBOCs, and directs the Department to submit a report outlining

the actual number and locations of CBOCs opened in fiscal year 2007.

Watertown and Wagner, South Dakota, Community Based Outpatient Clinics.—The Committee commends the VA for approving the establishment of CBOCs in Watertown and Wagner, South Dakota, and urges the Department to move in an expeditious manner in opening the two new clinics.

Rural Colorado.—Thousands of veterans in rural Colorado have to drive 200–300 miles round trip to the Denver VA Medical Center for basic medical services. Colorado has a strong and growing veteran population. The Committee encourages the Department of Veterans Affairs to study the feasibility of establishing a VA Community Based Outpatient Clinic to serve rural Colorado.

Northwest Washington.—The Committee is aware of the lack of access to VA primary care in Washington State and appreciates the Department's approval of a CBOC in Northwest Washington. The Committee encourages the VA to move forward in opening the CBOC by the VA's target date of February 2008.

Wenatchee Community Based Outpatient Clinic.—The Committee is concerned about repeated delays in the opening of the Wenatchee CBOC and urges the VA to open the clinic as soon as possible.

MEDICAL AND PROSTHETIC RESEARCH

Appropriations, 2007 [1]	$413,980,000
Budget estimate, 2008	411,000,000
Committee recommendation	500,000,000

[1] Excludes $32,500,000 in emergency supplemental funding included in Public Law 110–28.

PROGRAM DESCRIPTION

The "Medical and prosthetic research" account provides funds for medical, rehabilitative, and health services research. Medical research supports basic and clinical studies that advance knowledge leading to improvements in the prevention, diagnosis, and treatment of diseases and disabilities. Rehabilitation research focuses on rehabilitation engineering problems in the fields of prosthetics, orthotics, adaptive equipment for vehicles, sensory aids and related areas. Health services research focuses on improving the effectiveness and economy of the delivery of health services.

COMMITTEE RECOMMENDATION

The Committee recommends $500,000,000 for "Medical and prosthetic research". This is $86,020,000 above the fiscal year 2007 enacted level and $89,000,000 above the budget request.

The Committee remains highly supportive of this program, and recognizes its importance both in improving healthcare services to veterans and recruiting and retaining high-quality medical professionals in the Veterans Health Administration. Through the Department's research and development program, the VA has implemented a comprehensive research agenda to develop new treatments and tools for clinicians to ease the physical and psychological pain of men and women returning from conflicts, to improve access to VA healthcare services, and to accelerate discoveries and applications, especially for neurotrauma, sensory loss, amputation, polytrauma, and related prosthetic needs. The Committee encour-

ages the VA to expand its research into the areas of neurotrauma, sensory loss, and post traumatic stress disorder with a focus on developing clinical practices using evidenced-based medicine.

Longitudinal Study.—In 1984 Congress directed the VA to initiate a large-scale survey of the psychiatric and socio-medical components of Post Traumatic Stress Disorder [PTSD] in Vietnam and Vietnam-era veterans. The National Vietnam Veterans Readjustment Study [NVVRS] is the largest nationwide psychiatric study ever done to date. Only through the NVVRS has the American public and medical community become aware of the high rates of current and lifetime PTSD, and of the long-term consequences of high stress war zone combat exposure. Section 212 of Public Law 106–419, directed the VA to contract for a follow-up report, using the exact same participants, to assess the psychosocial, psychiatric, physical, and general well being of these individuals. The follow-up report would become a longitudinal study of the mortality and morbidity of the participants, and draw conclusions as to the long-term effects of service in the military and of service in Vietnam in particular. The results of the study were to be reported to Congress in 2005, but the study has not been executed to date. The results of the study would not only help the VA to better understand the long-term mental health and social needs of Vietnam veterans, but could prepare the VA for the long-term needs of Iraq and Afghanistan veterans who are returning in record numbers with PTSD. The Committee directs the Department to fulfill the mandate carried in Public Law 106–419 and to report to the Committee on Appropriations within 90 days of enactment of this act, the steps the Department is undertaking to execute this legal requirement.

Gulf War Illness Research.—The Committee is encouraged by the Department's commitment to continue to search for answers to the problems associated with gulf war illness, and encourages the Department to continue this effort by devoting not less than $15,000,000 annually to this research.

Nursing Research Program.—The Committee supports the Veterans Affairs Nursing Research Initiative to facilitate research that focuses on the specific healthcare needs of returning war heroes and aging veterans. The Committee strongly supports continuation of this program in the future.

The Committee also encourages collaboration between Veterans Affairs nurses and Tri Service Nursing Research Program award recipients in the exploration of research proposals that improve the health and well-being of their shared beneficiary population.

Neuro-rehabilitation Research.—The Committee is aware of the work being conducted at the Providence VA Medical Center on Neuro-rehabilitation. This research has promising implications for future generation prostheses. The Committee commends the research work being done in this area.

Geriatric Care.—The Committee is concerned that as the median age of veterans rises, the VA has not adequately concentrated its resources to deliver world class geriatric care. The Committee strongly encourages the VA to evaluate the desirability of expanding research and clinical specialists in disciplines related to aging to stay at the forefront of geriatric care.

MEDICAL CARE COST RECOVERY COLLECTIONS

MEDICAL CARE COLLECTION FUND

Appropriations, 2007	$2,329,000,000
Budget estimate, 2008	2,414,000,000
Committee recommendation	2,414,000,000

MEDICAL CARE COLLECTION FUND—REVENUES APPLIED

Appropriations, 2007	−$2,329,000,000
Budget estimate, 2008	−2,414,000,000
Committee recommendation	−2,414,000,000

PROGRAM DESCRIPTION

The Medical Care Collection Fund [MCCF] was established by the Balanced budget Act of 1997 (Public Law 105–33). In fiscal year 2004, Public Law 108–199 allowed the Department of Veterans Affairs to deposit first-party and pharmacy co-payments; third-party insurance payments and enhanced use collections; long-term care co-payments; Compensated Work Therapy Program collections; and Parking Program fees into the MCCF. The Secretary of Veterans Affairs has the authority to transfer funds between the MCCF and the medical services appropriation, and medical facilities appropriation.

COMMITTEE RECOMMENDATION

The Committee recommendation includes the authority to retain co-payments and third-party collections, estimated to total $2,414,000,000 in fiscal year 2008.

NATIONAL CEMETERY ADMINISTRATION

Appropriations, 2007 [1]	$160,747,000
Budget estimate, 2008 [1]	166,809,000
Committee recommendation [1]	217,709,000

[1] Previously included in Departmental Administration.

ADMINISTRATION OVERVIEW

The National Cemetery Administration was established in accordance with Public Law 93–94, the National Cemeteries Act of 1973. It has a four-fold mission: To provide for the interment in any national cemetery of the remains of eligible deceased servicepersons and discharged veterans, together with their spouses and certain dependents, and permanently to maintain their graves; to provide headstones for, and to mark graves of eligible persons in national, State, and private cemeteries; to administer the grant program for aid to States in establishing, expanding, or improving State veterans' cemeteries; and to administer the Presidential Memorial Certificate Program.

There are a total of 158 cemeterial installations in 39 States, the District of Columbia, and Puerto Rico. The Committee's recommendation for the National Cemetery Administration provides funds for all of these cemeterial installations.

COMMITTEE RECOMMENDATION

The Committee recommends $217,709,000 for the "National Cemetery Administration". This is an increase of $56,962,000 over the fiscal year 2007 enacted level and $50,900,000 above the budget request.

The Committee has included bill language to make available through September 30, 2009, up to $25,000,000 of the "National Cemetery Administration" [NCA] appropriation. The additional funding included above the budget request is for operations and maintenance to correct gravesite deficiencies identified in the Millennium Act Study and reflects a shift of $900,000 from Information Technology to NCA which was incorrectly transferred during the Information Technology reorganization. The 2002 Millennium Act Report to Congress identified 928 repair projects needed at national cemeteries at an estimated cost of $280,000,000. Through fiscal year 2006, NCA has completed work on 269 projects, with an estimated cost of $99,000,000. These projects account for about 44 percent of the deficiencies identified in the Millennium Act report. National shrine repairs include gravesite renovation projects to renovate turf, repair sunken graves and raise, realign and clean headstones. Personnel costs for these projects are funded in the NCA operations and maintenance budget.

Southern Colorado National Cemetery.—Southern Colorado is home to six active military installations, more than 32,000 active duty personnel, 44,000 family members, and more than 125,000 veterans. Despite these facts, there is no national veterans cemetery in the region, leaving military survivors to travel long distances in difficult conditions to reach the national veterans cemetery at Fort Logan. The Committee encourages the Department of Veterans Affairs to determine the feasibility of establishing a veterans cemetery in the Pikes Peak region of Colorado.

DEPARTMENTAL ADMINISTRATION

Appropriations, 2007[1][2]	$3,927,776,000
Budget estimate, 2008[1]	4,481,449,000
Committee recommendation[1]	5,427,529,000

[1] Does not include National Cemetery Administration.
[2] Excludes $444,300,000 in emergency supplemental funding included in Public Law 110–28.

ADMINISTRATION OVERVIEW

This appropriation provides for the administration of nonmedical veterans benefits through the Veterans Benefits Administration [VBA], the executive direction of the Department, several top level supporting offices, the Board of Contract Appeals, and the Board of Veterans' Appeals.

COMMITTEE RECOMMENDATION

The Committee recommends $5,427,529,000 for "Departmental administration". The amount is composed of $1,612,031,000 for "General operating expenses"; $88,700,000 for the "Office of the Inspector General"; $727,400,000 for "Construction, major projects"; $751,398,000 for "Construction, minor projects"; $250,000,000 for grants for "Construction of State extended care facilities";

$100,000,000 for "Grants for the construction of State veterans cemeteries"; and $1,898,000,000 for "Information technology systems".

GENERAL OPERATING EXPENSES

Appropriations, 2007 [1]	$1,481,473,000
Budget estimate, 2008	1,471,837,000
Committee recommendation	1,612,031,000

[1] Excludes $83,200,000 in emergency supplemental funding included in Public Law 110–28.

PROGRAM DESCRIPTION

This appropriation provides for the "General operating expenses" of the Department of Veterans Affairs.

COMMITTEE RECOMMENDATION

The Committee recommends $1,612,031,000 for "General operating expenses". This amount is $130,558,000 above the fiscal year 2007 enacted level and $140,194,000 above the budget request.

GENERAL OPERATING EXPENSES

[In thousands of dollars]

Department	Fiscal year 2008 request	Committee recommendation
Office of the Secretary	7,747	7,747
Veterans Benefits Administration	1,198,294	1,329,044
Board of Veterans Appeals	58,545	62,269
General Counsel	65,185	68,405
Office of Management	38,184	40,684
Human Resources & Administration	62,437	62,437
Office of Policy and Planning	14,775	14,775
Office of Security and Preparedness	11,911	11,911
Public and Intergovernmental Affairs	10,425	10,425
Congressional and Legislative Affairs	4,334	4,334
Total General Operating Expenses	1,471,837	1,612,031

Franchise Fund.—The Franchise Fund was established in 1997 as a pilot program and made permanent in fiscal year 2006 under Public Law 109–114. The Committee directs the Department to provide a report on the Franchise Fund's business plan for fiscal year 2008. This plan should include a list of services, customers, overhead expenses, funds collected for services, and the unobligated balance from the previous fiscal year. The VA shall submit this report to the Committees on Appropriations in both Houses of Congress no later than 60 days following enactment of this act.

Increase in Funding.—The Committee has provided an increase of $140,194,000 above the budget request for General Operating Expenses. In Public Law 110–28, the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007, Congress provided $60,750,000 for the hiring and training of new claims processors. The increase of $130,750,000 above the budget request for the VBA annualizes the costs of the new hires funded with supplemental funds and provides additional funding for the hiring of new claims processors in fiscal year 2008. Also included in this increase is $2,000,000 for VBA to enter into operating leases to increase space requirements to meet the level

of new personnel. Additionally, the Committee has provided an increase of $3,724,000 above the budget request for the Board of Veterans Appeals [BVA] and an increase of $3,220,000 above the budget request for the General Counsel [GC]. As the Department hires more claims processors, the number of expected appeals will increase. Thus the additional funding will provide both the BVA and GC with increased personnel to handle these appeals.

OFFICE OF INSPECTOR GENERAL

Appropriations, 2007	$73,066,000
Budget estimate, 2008	72,599,000
Committee recommendation	88,700,000

PROGRAM DESCRIPTION

The Office of Inspector General was established by the Inspector General Act of the 1978 and is responsible for the audit and investigation and inspections of all Department of Veterans Affairs programs and operations.

COMMITTEE RECOMMENDATION

The Committee recommends $88,700,000 for the "Office of Inspector General". This is $15,634,000 above the fiscal year 2007 enacted level and $16,101,000 above the budget request.

The recommended amount includes $1,100,000 from the "Information technology systems" account for IT systems unique to the Office of Inspector General.

The increase will allow the Office of Inspector General to expand and improve its independent oversight of transitional health care for veterans returning form OEF/OIF and VA information technology programs.

CONSTRUCTION, MAJOR PROJECTS

Appropriations, 2007	$399,000,000
Budget estimate, 2008	727,400,000
Committee recommendation	727,400,000

PROGRAM DESCRIPTION

The "Construction, major projects" account provides for constructing, altering, extending, and improving any of the facilities (including parking projects) under the jurisdiction or for the use of the VA, including planning, architectural and engineering services, Capital Asset Realignment Enhanced Services [CARES] activities, assessment, and site acquisition where the estimated cost of a project is more than the amount set forth in 38 U.S.C. section 8104(a)(3)(A). Proceeds realized from Enhanced Use Lease activities may be deposited into the "Construction, major projects" and "Construction, minor projects" accounts.

COMMITTEE RECOMMENDATION

The Committee recommends an appropriation of $727,400,000 for the construction of major projects. This is $328,400,000 above the fiscal year 2007 enacted level and equal to the budget request. The Committee has continued its practice of not earmarking major construction projects not requested in the budget submission. The

Committee strongly urges the Department to begin requesting adequate funding in future budget submissions to expedite construction projects associated with the VA's 5-year Capital Plan.

The following table compares the Committee recommendation with the budget request.

[In thousands of dollars]

Location and description	2008 request	Committee recommendation	Requested by
Veterans Health Administration (VHA):			
Pittsburgh, PA—Consolidation of Campuses	40,000	40,000	The President
Denver, CO—New Medical Center Facility	61,300	61,300	The President
Orlando, FL—New Medical Center Facility, Land Acquisition.	35,000	35,000	The President
Las Vegas, NV—New Medical Center Facility	341,400	341,400	The President
Syracuse, NY—Spinal Cord Injury (SCI) Center	23,800	23,800	The President
Lee County, FL—Outpatient Clinic	9,890	9,890	The President
Advanced Planning Fund—Various Locations	40,285	40,285	
Asbestos and Other Airborne Contaminates—Various Locations.	3,000	3,000	
BRAC Land Acquisitions—Various Locations	5,000	5,000	
Claims Analyses—Various Locations	2,000	2,000	
Facility Security Projects—Various Locations	21,325	21,325	
Facility Security General—Various Locations	.....	.....	
Hazardous Waste Abatement—Various Locations	2,000	2,000	
Judgment Fund—Various Locations	30,000	30,000	
Reprogramming From Prior Year Funds	−45,000	−45,000	
Sale of VA Assets	−10,000	−10,000	
Total VHA	560,000	560,000	
National Cemetery Administration (NCA):			
Columbia/Greenville-area National Cemetery—Phase 1 Development.	19,200	19,200	The President
Sarasota-area National Cemetery—Phase 1 Development.	27,800	27,800	The President
Jacksonville-area National Cemetery—Phase 1 Development.	22,400	22,400	The President
Southeastern, PA National Cemetery—Phase 1 Development.	29,600	29,600	The President
Birmingham-area National Cemetery—Phase 1 Development.	18,500	18,500	The President
Bakersfield-area National Cemetery—Phase 1 Development.	19,500	19,500	The President
Fort Sam Houston National Cemetery—Gravesites Development.	29,400	29,400	The President
Advanced Planning Fund—Various Locations	1,000	1,000	
Total NCA	167,400	167,400	
Total Construction, Major Projects	727,400	727,400	

Major Construction Planning.—The Committee is concerned that the cost estimates it receives for major construction projects vary widely from month-to-month and year-to-year, well beyond what can be accounted for through construction inflation. Between the time of the President's budget submission in Feburary and April 2007, five major projects increased by a collective 18 percent, representing over $120,000,000 in cost increases. This is in addition to significant increases recorded on the top eight projects between the 2007 and 2008 Presidential budget requests, which totaled over $615,000,000, a collective increase of 32 percent over previous estimates in just 1 year. The Committee is deeply concerned about the

Department's ability to accurately estimate project costs and therefore directs the Department to examine its major construction project estimation and oversight processes, and take whatever steps are necessary to ensure that information provided to the Committee is accurate, consistent, and realistic.

Capital Asset Realignment for Enhanced Services [CARES].—The Veterans Health Administration's capital planning is driven by the CARES process. In March 2007, the Government Accountability Office [GAO] issued a report highlighting the VA's inability to centrally track CARES decisions or monitor the impact that implementation has had on its mission. GAO notes that without this information, VA cannot determine what effect CARES has had on veterans' care or whether CARES is achieving intended results. The Committee encourages the VA to develop performance measures designed to centrally track the impact of CARES decisions and implementation.

Beckley, West Virginia, Nursing Home.—The Committee urges the VA to include $28,500,000 in the President's fiscal year 2009 budget request for the construction of a 90-bed nursing home and adult day care center at the Beckley VAMC, which was listed in the February 2005 VA's Five-Year Capital Plan.

Martinsburg, West Virginia, Veterans Affairs Medical Center.—The Committee urges the VA to include $3,560,000 in the President's fiscal year 2009 budget request for planning and design work associated with the renovation and expansion of the primary, mental health, and specialty outpatient care at the Martinsburg VAMC, which was listed in the February 2005 VA's Five-Year Capital Plan, 2005–2010.

Walla Walla Outpatient Facility.—The Committee is aware of the substantial number of veterans served by the Walla Walla, Washington, VA Medical Center and is supportive of the VA's decision to approve construction of an outpatient clinic in Walla Walla as part of the CARES process. In order to complete the construction of this project in a timely manner, the Committee urges the VA to include funding for this project in the fiscal year 2009 budget request.

CONSTRUCTION, MINOR PROJECTS

Appropriations, 2007 [1]	$198,937,000
Budget estimate, 2008	233,396,000
Committee recommendation	751,398,000

[1] Excludes $326,000,000 in emergency supplemental funding included in Public Law 110–28.

PROGRAM DESCRIPTION

The "Construction, minor projects" account provides for constructing, altering, extending, and improving any of the facilities (including parking) under the jurisdiction or for the use of the VA, including planning, CARES activities, assessment of needs, architectural and engineering services, and site acquisition, where the estimated cost of a project is equal to or less than $10,000,000. Public Law 106–117, the Veterans Millennium Health Care and Benefits Act of 1999, gave the VA the authority to make capital contributions from minor construction in enhanced-use leases. Proceeds realized from enhanced-use lease activities may be deposited

into the "Construction, major projects" and "Construction, minor projects" accounts.

COMMITTEE RECOMMENDATION

The Committee recommends $751,398,000 for minor construction. This is $552,461,000 above the fiscal year 2007 enacted level and $518,002,000 above the budget request.

The Committee has included additional funds within the minor construction account to continue the efforts to reduce the $5,000,000,000 worth of deficiencies outlined in the Department's rolling facilities condition assessments at existing facilities and to begin an effort to modernize and upgrade research facilities. Additionally, of the increase provided within this account, the Committee directs that an additional $75,000,000 above the budget request be used for gravesite expansion and infrastructure improvements at cemeteries operated by NCA and an additional $8,000,000 above the budget request be used for minor construction associated with the Veterans Benefits Administration. The Committee has included bill language requiring the Department to submit an expenditure plan for the amount appropriated for minor construction.

GRANTS FOR CONSTRUCTION OF STATE EXTENDED CARE FACILITIES

Appropriations, 2007	$85,000,000
Budget estimate, 2008	85,000,000
Committee recommendation	250,000,000

PROGRAM DESCRIPTION

This account is used to provide grants to assist States in acquiring or constructing State home facilities for furnishing domiciliary or nursing home care to veterans, and to expand, remodel or alter existing buildings for furnishing domiciliary, nursing home, or hospital care to veterans in State homes. The grant may not exceed 65 percent of the total cost of the project. Public Law 102–585 granted permanent authority for this program, and Public Law 106–117 provided greater specificity in directing VA to prescribe regulations for the number of beds for which grant assistance may be furnished. This program has been a successful partnership between the States and the VA in meeting the long-term care needs of elderly veterans for decades.

COMMITTEE RECOMMENDATION

The Committee recommends $250,000,000 for "Grants for the construction of State extended care facilities". This is $165,000,000 above the fiscal year 2007 enacted level and $165,000,000 above the budget request. This program cost-effectively meets long-term healthcare needs of veterans.

On August 11, 2006, the VA published an interim final rule in the Federal Register amending the Department's regulations regarding grants to States for construction or acquisition of State homes. The new regulation sets aside 70 percent of all funding appropriated to the Grants for Construction of State Extended Care Facilities to ensure sufficient funding for life safety projects at existing facilities. Over the past several years, the administration has not requested sufficient funds to cover both anticipated construc-

tion costs and life safety requirements. Therefore, the Committee has included additional funds within this account to assist the Department with its construction and life safety needs.

Walla Walla Extended Care Facility.—The Committee is aware of the collaborative efforts of the Walla Walla VA Medical Center and the Washington State Department of Veterans Affairs to meet the long-term care needs of veterans in southeast Washington and northern Oregon by building a long-term care facility on the Walla Walla VA Medical Center grounds. The Committee supports the creation of a jointly operated veterans' home in Walla Walla, Washington, and encourages the VA to promptly review this application and place it on the priority list for funding in fiscal year 2008 from the Grants for Construction of State Extended Care Facilities account.

North Dakota Veterans Home.—The Committee is aware that the North Dakota Veterans Home in Lisbon, North Dakota, has been cited in violation of structural conditions that threaten the life and safety of its residents and that the State has applied for a grant to help replace the facility. The Committee understands that the North Dakota application qualifies for the highest priority of VA matching funds, and it encourages the VA to promptly evaluate this application and place it on the priority list for funding in fiscal year 2008 from the Grants for Construction of State Extended Care Facilities account.

GRANTS FOR THE CONSTRUCTION OF STATE VETERANS CEMETERIES

Appropriations, 2007	$32,000,000
Budget estimate, 2008	32,000,000
Committee recommendation	100,000,000

PROGRAM DESCRIPTION

Public Law 105–368, amended title 38 U.S.C. section 2408, established authority to provide aid to States for establishment, expansion, and improvement of State veterans cemeteries which are operated and permanently maintained by the States. This statutory change increased the maximum Federal share from 50 percent to 100 percent in order to fund construction costs and the initial equipment expenses when the cemetery is established. The States remain responsible for providing the land and for paying all costs related to the operation and maintenance of the State cemeteries, including the costs for subsequent equipment purchases.

The Committee is aware that pending applications for improvement or expansion of existing State cemeteries or establishment of new State cemeteries totals almost $172,000,000. The Committee has included additional funding to ensure that State cemeteries are maintained at the highest level and capacity exists for future burials.

COMMITTEE RECOMMENDATION

The Committee recommends $100,000,000 for "Grants for the construction of State veterans cemeteries". This is $68,000,000 above the fiscal year 2007 enacted level and $68,000,000 the budget request.

INFORMATION TECHNOLOGY SYSTEMS

Appropriations, 2007[1]	$1,214,000,000
Budget estimate, 2008	1,859,217,000
Committee recommendation	1,898,000,000

[1] Excludes $35,100,000 in emergency supplemental funding provided in Public Law 110–28.

PROGRAM DESCRIPTION

The Information Technology [IT] Systems account was created in Public Law 109–114, the Military Quality of Life and Veterans Affairs Appropriations Act, 2006, in order to centralize the Department's IT development into one account. The establishment of this account has allowed for better budget planning, control and oversight of VA's IT system development. In fiscal year 2007, the VA furthered this realignment by consolidating pay associated costs for operations and maintenance staff under the IT account. The budget request for fiscal year 2008 reflects this realignment.

COMMITTEE RECOMMENDATION

The Committee remains very supportive of IT efforts, particularly in the field of claims processing and electronic health records, and recommends an appropriation of $1,898,000,000 for Information Technology Systems, an increase of $684,000,000 above the fiscal year 2007 enacted level and $38,783,000 above the budget request. Within the amounts provided, the Committee directs $39,683,000 be utilized for computers and other information technology needs associated with the increase in claims processors for the Veterans Benefits Administration and for increased staff across the VA.

While the Committee is supportive of the consolidation of pay associated costs for operations and maintenance under the IT account, it strongly encourages the Department to continue to track non-pay and pay costs separately in future budget justifications for this account. Therefore, of the amounts provided with the IT account, $1,303,841,000 is for non-pay expenses, including equipment associated with system development, and $554,376,000 is for payroll expenses.

To provide further oversight and monitoring of system development costs the Committee has included bill language requiring the Department to submit an expenditure plan for the total amount provided, as well as a reprogramming base letter outlining, by project, total costs associated with each development project.

Department of Veterans Affairs/Department of Defense Interoperability.—It is imperative that future electronic medical records systems, as well as systems designed to expedite the processing of benefits claims, be interoperable with systems being developed by the Department of Defense. The Committee remains concerned that any deviation from interoperability would lead to further stove-piping of information, increasing lag times in processing medical records and benefits claims. The Committee understands that the VA has established initiatives that support the VA/DOD Joint Strategic Plan to share timely, consistent, demographic and personnel related data. The Committee directs the Department to submit a report to the Committee on Appropriations by January 31, 2008,

detailing the steps the VA is undertaking to ensure that future systems will be interoperable with DOD systems.

Information Security.—The Department of Veterans Affairs is responsible for maintaining and protecting personal, financial and medical data for millions of veterans. In May 2006, the Department established the Data Security/Assessment and Strengthening of Controls program. This program was established to provide focus to all of the Department's activity related to data security. Nonetheless, the safeguard of personal information by the VA remains a deep concern for the Committee. In Public Law 110–28, the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007, Congress provided $15,100,000 in supplemental funding for remediation/prevention actions related to the latest data breach. Proper training and encryption technology must reach throughout the VA system. Therefore, the Committee directs the Department to submit a report to the Committee on Appropriations no later than February 8, 2008, detailing what mechanisms are being employed by VA headquarters to ensure adequate training in field locations and explaining how encryption technology is being implemented throughout the system.

Financial and Logistics Integrated Technology Enterprise [FLITE].—The Department of Veterans Affairs is taking important steps toward implementing its financial and logistics integrated technology enterprise [FLITE], including the adoption of a functional FLITE Governance Framework and the hiring of a dedicated program director. This management structure provides a new and necessary level of accountability for this crucial initiative.

The Committee is anxious to see a comprehensive schedule for this project that includes a total project cost. Congress appropriated $26,000,000 in fiscal year 2006, $15,000,000 in fiscal year 2007, and supports the VA request for $35,000,000 in fiscal year 2008. However, the Committee is concerned that the scope of the project could be far larger than projected. The Department has failed to determine a definitive resourced schedule and a total cost for this project. As a result, the VA shall report to the Committee within 30 days after enactment of this act on a total cost and realistic schedule to complete this project. If the Department cannot satisfy this requirement, the Department shall notify the Committee in writing within the 30-day period why the schedule and cost cannot be determined.

HealtheVet-Vista Electronic Health Records.—The Committee lauds the VA on its accomplishments with its electronic health record system. This premier system sets the standard for quality health care in both the public and private sectors. HealtheVet-Vista, an on-line patient records system, has made it possible for physicians and clinicians to have accurate and timely access to all relevant information on the veteran's health, thus enabling the best health care for the veteran. HealtheVet-Vista has the potential to revolutionize the health care system in the United States, and the Committee fully supports the VA's efforts in improving the quality of healthcare delivery.

ADMINISTRATIVE PROVISIONS

SEC. 201. The Committee includes a provision which outlines reprogramming authority and responsibilities for the Veterans Benefits Administration.

SEC. 202. The Committee includes a provision which outlines reprogramming authority and responsibilities for the Veterans Health Administration.

SEC. 203. The Committee includes a provision which outlines the use of the "Salaries and expenses" account.

SEC. 204. The Committee includes a provision mandating that only construction funds may be used for land procurement.

SEC. 205. The Committee includes a provision allowing for reimbursements to the "Medical services" account.

SEC. 206. The Committee includes a provision allowing for payments of prior year obligations.

SEC. 207. The Committee includes a provision which allows for the use of fiscal year 2007 funds for prior year obligations.

SEC. 208. The Committee includes a provision which allows for payments from the National Service Life Insurance Fund.

SEC. 209. The Committee includes a provision which outlines the use of funds from enhanced-use lease proceeds.

SEC. 210. The Committee includes a provision which provides for funds for the Office of Resolution Management and the Office of Employment Discrimination Complaint Adjudication.

SEC. 211. The Committee includes a provision which sets a limit on new leases without congressional approval.

SEC. 212. The Committee includes a provision which requires disclosure of third-party reimbursement information.

SEC. 213. The Committee includes a provision which allows for the transfer of funds into the construction accounts.

SEC. 214. The Committee includes a provision which outlines authorized uses for "Medical services" funds.

SEC. 215. The Committee includes a provision which allows funds in the Medical Care Collection Fund to be transferred into the "Medical services" account.

SEC. 216. The Committee includes a provision which allows eligible veterans in the State of Alaska to obtain medical care services.

SEC. 217. The Committee includes a provision which allows for the transfer of funds into the construction accounts.

SEC. 218. The Committee includes a provision which allows for outreach and marketing to enroll new veterans.

SEC. 219. The Committee includes a provision requiring the Secretary of Veterans Affairs to submit quarterly financial reports on the Veterans Health Administration.

SEC. 220. The Committee includes a provision outlining transfer authority to the "Information technology systems" account.

SEC. 221. The Committee includes a provision outlining transfer authority to the "Medical services" account.

SEC. 222. The Committee includes a provision outlining limits on transfers within the "Information technology systems" account.

SEC. 223. The Committee includes a provision prohibiting the Department from implementing a national standardized contract for diabetes monitoring equipment.

SEC. 224. The Committee includes a provision limiting the amount of non-recurring maintenance fund that can be obligated during the last 2 months of the fiscal year.

SEC. 225. The Committee includes a provision prohibiting disposal of land at the West Los Angeles Veterans Affairs Medical Center (Mrs. Feinstein).

SEC. 226. The Committee includes a provision maintaining research for gulf war illness.

TITLE III

RELATED AGENCIES

AMERICAN BATTLE MONUMENTS COMMISSION

PROGRAM DESCRIPTION

The American Battle Monuments Commission [ABMC] is responsible for the following: the maintenance and construction of U.S. monuments and memorials commemorating the achievements in battle of our Armed Forces since April 1917 (the date of the United States entry into World War I); the erection of monuments and markers by U.S. citizens and organizations in foreign countries; and the design, construction, and maintenance of permanent military cemetery memorials in foreign countries. The Commission maintains 24 military memorial cemeteries and 31 monuments, memorials, and markers in 15 countries around the world, including three memorials on U.S. soil. It is presently charged with erecting an Interpretive Center at the Normandy American Cemetery, Normandy, France.

SALARIES AND EXPENSES

Appropriations, 2007	$37,000,000
Budget estimate, 2008	42,100,000
Committee recommendation	45,600,000

COMMITTEE RECOMMENDATION

The Committee recommends $45,600,000 for the "Salaries and expenses" account. This amount is $8,600,000 above the fiscal year 2007 enacted level and $3,500,000 above the budget request. The Committee has increased the appropriation for ABMC above the budget request for additional capital improvements and infrastructure modernization. The Committee is dedicated to ensuring that budget requests include sufficient funding for maintenance and infrastructure improvements at American military cemeteries abroad. Therefore, the Committee directs the ABMC to submit a report to the Committees on Appropriations by February 29, 2008, detailing maintenance and infrastructure requirements at all ABMC memorials.

Pointe du Hoc.—In fiscal year 2006, the Committee provided funding for the ABMC to conduct a study on ground erosion surrounding the World War II Pointe du Hoc Ranger Monument in France. The Committee directs the AMBC to submit a copy of this report to the Committee on Appropriations by November 10, 2007.

The bill does not include funds for payments to the State Department's Capital Security Cost Sharing Program.

FOREIGN CURRENCY FLUCTUATIONS

Appropriations, 2007	$5,000,000
Budget estimate, 2008	11,000,000
Committee recommendation	11,000,000

COMMITTEE RECOMMENDATION

The Committee recommends $11,000,000 for the "Foreign currency fluctuation" account. This amount is $6,000,000 above the fiscal year 2007 enacted level and equal to the budget request.

U.S. COURT OF APPEALS FOR VETERANS CLAIMS

OVERVIEW

The U.S. Court of Appeals for Veterans Claims was established by the Veterans' Judicial Review Act of 1988. The Court is an independent judicial tribunal with exclusive jurisdiction to review decisions of the Board of Veterans' Appeals. It has the authority to decide all relevant questions of law; interpret constitutional, statutory, and regulatory provisions; and determine the meaning or applicability of the terms of an action by the Secretary of Veterans Affairs. It is authorized to compel action by the Secretary. It is authorized to hold unconstitutional or otherwise unlawful and set aside decisions, findings, conclusions, rules and regulations issued or adopted by the Secretary of Veterans Affairs, the Board of Veterans' Appeals, or the Chairman of the Board that are found to be arbitrary or capricious. The Court's principle office location is Washington, District of Columbia; however, it is a national court, empowered to sit anywhere in the United States.

SALARIES AND EXPENSES

Appropriations, 2007	$20,189,000
Budget estimate, 2008	21,217,000
Committee recommendation	24,217,000

COMMITTEE RECOMMENDATION

The Committee recommends $24,217,000 for the "U.S. Court of Appeals for Veterans Claims". This amount is an increase of $4,028,000 above the fiscal year 2007 enacted level and $3,000,000 above the budget request. In Public Law 110–28, the Committee included emergency supplemental funds for the Veterans Benefits Administration to hire additional claims processors. In fiscal year 2008, the Committee has recommended an additional increase above the budget request for the Veterans Benefits Administration's General Operating Expenses to annualize the costs of those hires and to provide funding for additional personnel in fiscal year 2008. The Committee realizes that increases in claims processing has a ripple effect across the entire system and leads to more cases before the Court. Thus the Committee has provided additional resources to ensure the Court can operate in a timely fashion.

DEPARTMENT OF DEFENSE—CIVIL

CEMETERIAL EXPENSES, ARMY

OVERVIEW

The Secretary of the Army is responsible for the administration, operation and maintenance of Arlington National Cemetery and the Soldiers' and Airmen's Home National Cemetery. In addition to its principal function as a national cemetery, Arlington is the site of approximately 3,100 non-funeral ceremonies each year and has approximately 4,000,000 visitors annually.

SALARIES AND EXPENSES

Appropriations, 2007	$30,000,000
Budget estimate, 2008	26,892,000
Committee recommendation	31,865,000

COMMITTEE RECOMMENDATION

The Committee recommends $31,865,000 for the "Ceremonial expenses, Army" account. This amount is $1,865,000 above the fiscal year 2007 enacted level and $4,973,000 above the budget request. The Committee recommendation provides an increase for the realignment of government-issued headstones, the construction of a heavy equipment storage facility, and costs not included in the budget request associated with the relocation of utilities at Arlington National Cemetery.

ARMED FORCES RETIREMENT HOME

Appropriations, 2007	$57,227,000
Budget estimate, 2008	61,624,000
Committee recommendation	61,624,000

PROGRAM DESCRIPTION

The Armed Forces Retirement Home account provides funds to operate and maintain the Armed Forces Retirement Home—Washington, District of Columbia, and the Armed Forces Retirement Home—Gulfport, Mississippi. These two facilities provide medical and domiciliary care and other authorized benefits for the relief and support of certain retired and former military personnel of the Armed Forces.

COMMITTEE RECOMMENDATION

The Committee recommends authority to expend $61,624,000 from the Armed Forces Retirement Home Trust Fund to operate and maintain the Armed Forces Retirement Home—Washington, District of Columbia, and the Armed Forces Retirement Home—Gulfport, Mississippi. This amount is $4,397,000 above the fiscal year 2007 enacted level and equal to the budget request.

ADMINISTRATIVE PROVISION

SEC. 301. The Committee includes a provision that prohibits American Battle Monuments Commission funds from being used for the Capital Security Costs Sharing program.

TITLE IV

GENERAL PROVISIONS

SEC. 401. The Committee includes a provision that prohibits the obligation of funds beyond the current fiscal year unless expressly so provided.

SEC. 402. The Committee includes a provision that requires pay raises to be absorbed within the levels appropriated.

SEC. 403. The Committee includes a provision that prohibits the use of funds for programs, projects or activities not in compliance with Federal law relating to risk assessment, the protection of private property rights, or unfunded mandates.

SEC. 404. The Committee includes a provision that prohibits the use of funds to support or defeat legislation pending before Congress.

SEC. 405. The Committee includes a provision that encourages the expansion of E-Commerce technologies and procedures.

SEC. 406. The Committee includes a provision that limits funds from being transferred from this appropriations measure to any instrumentality of the United States Government without authority from an appropriations act.

SEC. 407. The Committee includes a provision that specifies the congressional committees that are to receive all reports and notifications.

COMPLIANCE WITH PARAGRAPH 7, RULE XVI, OF THE STANDING RULES OF THE SENATE

Paragraph 7 of rule XVI requires that Committee reports accompanying general appropriations bills identify each recommended amendment which proposes an item of appropriation which is not made to carry out the provisions of an existing law, a treaty stipulation, or an act or resolution previously passed by the Senate during that session. The Committee is filing an original bill, which is not covered under this rule, but reports this information in the spirit of full disclosure. The Committee recommends funding for the following programs which currently lack authorization:

Title I: Department of Defense

Military Construction, Army
Military Construction, Navy and Marine Corps
Military Construction, Air Force
Military Construction, Defense-Wide
Military Construction, Army National Guard
Military Construction, Air National Guard
Military Construction, Army Reserve
Military Construction, Navy Reserve
Military Construction, Air Force Reserve
North Atlantic Treaty Organization, Security Investment Program
Family Housing Construction, Army
Family Housing Operation and Maintenance, Army
Family Housing Construction, Navy and Marine Corps
Family Housing Operation and Maintenance, Navy and Marine Corps
Family Housing Construction, Air Force
Family Housing Operation and Maintenance, Air Force
Family Housing Operation and Maintenance, Defense-Wide
Department of Defense, Family Housing Improvement Fund
Chemical Demilitarization, Defense-Wide
Base Closure Account, 1990
Base Closure Account, 2005

Title II: Department of Veterans Affairs

Veterans Health Administration
National Cemetery Administration
Departmental Administration

Title III: Related Agencies

American Battle Monuments Commission
U.S. Court of Appeals for Veterans Claims
Cemeterial Expenses, Army
Armed Forces Retirement Home

COMPLIANCE WITH PARAGRAPH 7(C), RULE XXVI OF THE STANDING RULES OF THE SENATE

Pursuant to paragraph 7(c) of rule XXVI, on June 14, 2007, the Committee ordered reported an original bill (S. 1645) making appropriations for the military construction, the Department of Veterans Affairs, and related agencies for the fiscal year ending September 30, 2008, subject to amendment and subject to the budget allocations and authorized the chairman of the committee or the chairman of the subcommittee to offer the text of the Senate bill as a committee amendment in the nature of a substitute to the House companion measure, by a recorded vote of 28–1, a quorum being present. The vote was as follows:

Yeas	Nays
Chairman Byrd	Mr. Craig
Mr. Inouye	
Mr. Leahy	
Mr. Harkin	
Ms. Mikulski	
Mr. Kohl	
Mrs. Murray	
Mr. Dorgan	
Mrs. Feinstein	
Mr. Durbin	
Mr. Johnson	
Ms. Landrieu	
Mr. Reed	
Mr. Lautenberg	
Mr. Nelson	
Mr. Cochran	
Mr. Stevens	
Mr. Specter	
Mr. Domenici	
Mr. Bond	
Mr. McConnell	
Mr. Shelby	
Mr. Gregg	
Mr. Bennett	
Mrs. Hutchison	
Mr. Brownback	
Mr. Allard	
Mr. Alexander	

COMPLIANCE WITH PARAGRAPH 12, RULE XXVI OF THE STANDING RULES OF THE SENATE

Paragraph 12 of rule XXVI requires that Committee reports on a bill or joint resolution repealing or amending any statute or part of any statute include "(a) the text of the statute or part thereof which is proposed to be repealed; and (b) a comparative print of that part of the bill or joint resolution making the amendment and of the statute or part thereof proposed to be amended, showing by stricken-through type and italics, parallel columns, or other appropriate typographical devices the omissions and insertions which

would be made by the bill or joint resolution if enacted in the form recommended by the committee."

TITLE 38—VETERANS' BENEFITS

* * * * * * *

PART VI—ACQUISITION AND DISPOSITION OF PROPERTY

* * * * * * *

CHAPTER 81—ACQUISITION AND OPERATION OF HOSPITAL AND DOMICILIARY FACILITIES; PROCUREMENT AND SUPPLY; ENHANCED-USE LEASES OF REAL PROPERTY

* * * * * * *

SUBCHAPTER V—ENHANCED-USE LEASES OF REAL PROPERTY

* * * * * * *

§ 8162. Enhanced-use leases

(a)(1) * * *

* * * * * * *

(c)(1) Subject to paragraph (2), the entering into an enhanced-use lease covering any land or improvement described in section 421(b)(2) of the Veterans' Benefits and Services Act of 1988 (Public Law 100-322; 102 Stat. 553) *or section 225(a) of the Military Construction and Veterans Affairs and Related Agencies Appropriations Act, 2008* shall be considered to be prohibited by **[**that section**]** *such sections* unless specifically authorized by law.

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
ALABAMA				
ARMY:				
ANNISTON ARMY DEPOT:				
INDUSTRIAL WASTE WATER TREATMENT PLANT	26,000	26,000	.....	THE PRESIDENT
REDSTONE ARSENAL:				
SYSTEMS SOFTWARE ENGINEERING ANNEX	.....	20,000	+20,000	MR. SHELBY/MR. SESSIONS
NAVY:				
EVERGREEN:				
NAVAL OUTLYING LANDING FACILITY EVERGREEN RUNWAY EXTENSION	9,560	9,560	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
SPRINGVILLE:				
READINESS CENTER, ADDITION/ALTERATION (ARMY DIVISION REDESIGN STUDY)	3,300	3,300	.....	THE PRESIDENT
TOTAL, ALABAMA	38,860	58,860	+20,000	
ALASKA				
ARMY:				
FORT RICHARDSON:				
BARRACKS (GROW THE FORCE)	.....	36,000	+36,000	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	42,000	+42,000	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	14,800	+14,800	THE PRESIDENT
FORT WAINWRIGHT:				
BARRACKS (GROW THE FORCE)	.....	20,000	+20,000	THE PRESIDENT
COMPANY OPERATIONS FACILITY	14,000	14,000	.....	THE PRESIDENT
RAILHEAD OPERATIONS FACILITY, PHASE I	.....	8,900	+8,900	MR. STEVENS
REPLACE SUBSTATION/UPGRADE ELECTRIC	60,000	60,000	.....	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	11,600	+11,600	THE PRESIDENT
AIR FORCE:				
ELMENDORF AFB:				
F–22 7 BAY AIRCRAFT SHELTER	21,400	21,400	.....	THE PRESIDENT

F–22 FIGHTER TOWN EAST INFRASTRUCTURE PHASE 2	7,100	7,100	.....	THE PRESIDENT
F–22 JET ENGINE INSPECTION & MAINTENANCE	13,800	13,800	.....	THE PRESIDENT
F–22 TAXIWAY, TAXILANE & ARM/DE-ARM PAD	27,880	27,880	.....	THE PRESIDENT
JOINT PROFESSIONAL MILITARY EDUCATION CENTER	.....	13,000	+13,000	MR. STEVENS
AIR FORCE RESERVE:				
ELMENDORF AFB:				
AIRCRAFT MAINTENANCE SQUADRON FACILITY	4,550	4,550	.....	THE PRESIDENT
GROUP HEADQUARTERS	10,400	10,400	.....	THE PRESIDENT
TOTAL, ALASKA	159,130	305,430	+146,300	
ARIZONA				
ARMY:				
FORT HUACHUCA:				
AIT TRAINEE COMPLEX (GROW THE FORCE)	.....	105,000	+105,000	THE PRESIDENT
GENERAL INSTRUCTIONAL BUILDING (GROW THE FORCE)	.....	13,600	+13,600	THE PRESIDENT
EFFLUENT REUSE SYSTEM	11,000	11,000	.....	THE PRESIDENT
NAVY:				
YUMA:				
BACHELOR ENLISTED QUARTERS	22,980	22,980	.....	THE PRESIDENT
TOWWAY G	10,740	10,740	.....	THE PRESIDENT
AIR FORCE:				
DAVIS-MONTHAN AFB:				
COMBAT SEARCH AND RESCUE EC130 MAINTENANCE HANGAR/ AIRCRAFT MAINTENANCE UNIT	11,200	11,200	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
FLORENCE:				
FIELD MAINTENANCE SHOP	.....	10,870	+10,870	MR. KYL
TOTAL, ARIZONA	55,920	185,390	+129,470	
ARKANSAS				
AIR FORCE:				
LITTLE ROCK AIR FORCE BASE:				
RUNWAY REPAIR	.....	9,800	+9,800	MRS. LINCOLN/MR. PRYOR
ARMY NATIONAL GUARD:				
CAMP ROBINSON:				
AMMUNITION SUPPLY POINT	5,500	5,500	.....	THE PRESIDENT
PROFESSIONAL EDUCATION CENTER/GED PLUS TRAINING COMPLEX (GROW THE FORCE)	.....	18,423	+18,423	THE PRESIDENT
TOTAL, ARKANSAS	5,500	33,723	+28,223	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
CALIFORNIA				
ARMY:				
FORT IRWIN:				
MILITARY OPERATIONS URBAN TERRAIN, PHASE 2	18,500	.....	−18,500	THE PRESIDENT
TRAINING LAND IMPROVEMENTS	5,500	5,500	.....	THE PRESIDENT
PRESIDIO MONTEREY:				
GENERAL INSTRUCTION BUILDING	28,000	28,000	.....	THE PRESIDENT
NAVY:				
CAMP PENDLETON:				
1ST MARINE LOGISTICS GROUP ARMORY (GROW THE FORCE)	.....	8,150	+8,150	THE PRESIDENT
1ST MARINE LOGISTICS GROUP AND BATTALION OPERATIONS CENTER (GROW THE FORCE)	.....	22,220	+22,220	THE PRESIDENT
1ST MARINE LOGISTICS GROUP OPERATIONS CENTER (GROW THE FORCE)	.....	18,160	+18,160	THE PRESIDENT
BACHELOR ENLISTED QUARTERS-WOUNDED WARRIOR BATTALION (GROW THE FORCE)	.....	25,940	+25,940	THE PRESIDENT
BACHELOR ENLISTED QUARTERS—CHAPPO	29,050	29,050	.....	THE PRESIDENT
BACHELOR ENLISTED QUARTERS—HEADQUARTERS	31,980	31,980	.....	THE PRESIDENT
BACHELOR ENLISTED QUARTERS—MARGARITA	26,530	26,530	.....	THE PRESIDENT
CONSOLIDATED COMMUNICATIONS/ELECTRONICS SHOP (GROW THE FORCE)	.....	16,840	+16,840	THE PRESIDENT
FORCE INTELLIGENCE OPERATIONS CENTER—HEADQUARTERS AREA (GROW THE FORCE)	.....	24,990	+24,990	THE PRESIDENT
HANGAR ADDITIONS	4,400	4,400	.....	THE PRESIDENT
INFANTRY SQUAD BATTLE COURSE	18,090	18,090	.....	THE PRESIDENT
INTELLIGENCE, SURVEILLANCE, AND RECONNAISANCE CAMP—INTELLIGENCE BATTALION	17,980	17,980	.....	THE PRESIDENT
MARINE SPECIAL OPERATIONS COMMAND SUPPORTING FACILITIES	17,730	17,730	.....	THE PRESIDENT
PHYSICAL FITNESS CENTER	8,510	8,510	.....	THE PRESIDENT
TACTICAL SUPPORT VAN PADS EXPANSION	6,050	6,050	.....	THE PRESIDENT
TRAFFIC IMPROVEMENTS	5,830	5,830	.....	THE PRESIDENT
MIRAMAR:				
HANGAR MODIFICATION (GROW THE FORCE)	.....	26,760	+26,760	THE PRESIDENT
SAN DIEGO:				
MAGNETIC SILENCING FACILITY MODIFICATION	14,590	14,590	.....	THE PRESIDENT
PIER 5002 SUB FENDER INSTALLATION	9,040	9,040	.....	THE PRESIDENT

TWENTYNINE PALMS:				
ARMORY (GROW THE FORCE)	.....	5,920	+5,920	THE PRESIDENT
BACHELOR ENLISTED QUARTERS AND PARKING STRUCTURE	34,329	34,329	.....	THE PRESIDENT
LANDFILL (GROW THE FORCE)	.....	13,560	+13,560	THE PRESIDENT
MOUT-FACILITY (PHASE 3) (GROW THE FORCE)	.....	21,390	+21,390	THE PRESIDENT
MULTI-BATTALION OPERATIONS CENTER (GROW THE FORCE)	.....	33,770	+33,770	THE PRESIDENT
MULTI-BATTALION OPERATIONS CENTER (GROW THE FORCE)	.....	33,650	+33,650	THE PRESIDENT
AIR FORCE:				
EDWARDS AFB:				
MAIN BASE RUNWAY INCREMENT 3	35,000	35,000	.....	THE PRESIDENT
TRAVIS AFB:				
C–17 ROAD IMPROVEMENTS	4,600	4,600	.....	THE PRESIDENT
C–17 SOUTHWEST LANDING ZONE	22,000	22,000	.....	THE PRESIDENT
DEFENSE-WIDE:				
CAMP PENDLETON:				
SPECIAL OPERATIONS FORCES ACADEMIC INSTRUCTION FACILITY	5,950	5,950	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES PARALOFT/BOAT/DIVE LOCKER	5,770	5,770	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES SUPPLY FACILITY	8,310	8,310	.....	THE PRESIDENT
CORONADO:				
SPECIAL OPERATIONS FORCES SPECIAL BOAT TEAM OPERATIONS FACILITY	12,000	12,000	.....	THE PRESIDENT
POINT LOMA ANNEX:				
REPLACE FUEL STORAGE FACILITIES	140,000	140,000	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
CAMP ROBERTS:				
INFANTRY PLATOON BATTLE COURSE	2,850	2,850	.....	THE PRESIDENT
SACRAMENTO ARMY DEPOT:				
READINESS CENTER	21,000	21,000	.....	THE PRESIDENT
ARMY RESERVE:				
FORT HUNTER LIGGETT:				
CONVOY LIVE FIRE RANGE	2,534	2,534	.....	THE PRESIDENT
RANGE CONTROL FACILITY	4,501	4,501	.....	THE PRESIDENT
GARDEN GROVE:				
ARMY RESERVE CENTER	25,440	25,440	.....	THE PRESIDENT
NAVY RESERVE:				
MIRAMAR:				
RESERVE CENTER ADDITIONS	5,580	5,580	.....	THE PRESIDENT
TOTAL, CALIFORNIA	571,644	804,494	+232,850	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
COLORADO				
ARMY:				
FORT CARSON:				
BARRACKS (GROW THE FORCE)	.....	53,000	+53,000	THE PRESIDENT
DEFENSE ACCESS ROAD	9,300	8,300	−1,000	THE PRESIDENT
HOSPITAL ADDITION & DENTAL CLINIC (GROW THE FORCE)	.....	18,000	+18,000	THE PRESIDENT
INDOOR RANGE	4,900	4,900	.....	THE PRESIDENT
UNIT OPERATION FACILITIES (GROW THE FORCE)	.....	59,000	+59,000	THE PRESIDENT
UNIT OPERATION FACILITIES (GROW THE FORCE)	.....	13,000	+13,000	THE PRESIDENT
AIR FORCE:				
FORT CARSON:				
AIR SUPPORT OPERATIONS SQUADRON COMPLEX	13,500	13,500	.....	THE PRESIDENT
SCHRIEVER AFB:				
AIR AND SPACE INTEGRATION FACILITY	24,500	24,500	.....	THE PRESIDENT
U.S. AIR FORCE ACADEMY:				
UPGRADE ACADEMIC FACILITY PHASE IVB	15,000	15,000	.....	THE PRESIDENT
CHEMICAL DEMILITARIZATION CONSTRUCTION, DEFENSE-WIDE:				
PUEBLO ARMY DEPOT:				
AMMUNITION DEMILITARIZATION FACILITY PH IX	35,159	35,159	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
BUCKLEY AFB:				
REPLACE SQUADRON OPERATIONS	.....	7,300	+7,300	MR. ALLARD/MR. SALAZAR
TOTAL, COLORADO	102,359	251,659	+149,300	
CONNECTICUT				
NAVY:				
NEW LONDON SUBMARINE BASE:				
WATERFRONT OPERATIONS SMALL CRAFT FACILITY	.....	11,900	+11,900	MR. DODD/MR. LIEBERMAN:

ARMY NATIONAL GUARD:				
NIANTIC:				
READINESS CENTER (ARMY DIVISION REDESIGN STUDY)	13,600	13,600	.....	THE PRESIDENT
TOTAL, CONNECTICUT	13,600	25,500	+11,900	
DELAWARE				
ARMY:				
DOVER AFB:				
JOINT PERSONAL EFFECTS DEPOT	17,500	17,500	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
NEW CASTLE COUNTY AIR GUARD BASE:				
C–130 MAINTENANCE HANGER, PHASE I	.....	10,800	+10,800	MR. BIDEN/MR. CARPER
TOTAL, DELAWARE	17,500	28,300	+10,800	
DISTRICT OF COLUMBIA				
AIR FORCE:				
BOLLING AFB:				
COMMUNICATION SWITCH FACILITY	2,500	2,500	.....	THE PRESIDENT
DEFENSE-WIDE:				
BOLLING AFB:				
INSTALL BACKUP WATER SYSTEM	1,012	1,012	.....	THE PRESIDENT
TOTAL, DISTRICT OF COLUMBIA	3,512	3,512	.....	
FLORIDA				
ARMY:				
EGLIN AFB:				
OPERATIONS COMPLEX, PHASE 2	66,000	66,000	.....	THE PRESIDENT
MIAMI DORAL:				
SOUTHERN COMMAND HEADQUARTERS FACILITY INCREMENT I	237,000	118,500	−118,500	THE PRESIDENT
NAVY:				
BLOUNT ISLAND:				
MAIN GATE IMPROVEMENTS	7,570	7,570	.....	THE PRESIDENT
CAPE CANAVERAL AIR FORCE STATION:				
ENGINEERING SERVICES FACILITY	.....	9,900	+9,900	MR. BILL NELSON
PANAMA CITY:				
LITTORAL WARFARE SYSTEMS FACILITY	13,870	13,870	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
AIR FORCE:				
EGLIN AFB:				
CONSTRUCT SEAWALLS SANTA ROSA ISLAND RANGE COMPLEX	35,000	35,000	.....	THE PRESIDENT
F–35 ADD/ALTER 53RD JOINT REPROGRAMMING FACILITY	8,300	8,300	.....	THE PRESIDENT
F–35 INTEGRATED TRAINING CENTER	39,000	39,000	.....	THE PRESIDENT
F–35 SQUADRON OPERATIONS/AIRCRAFT MAINTENACE UNIT/ HANGAR	27,000	27,000	.....	THE PRESIDENT
REPAIR ROADS SANTA ROSA ISLAND RANGE COMPLEX	49,000	49,000	.....	THE PRESIDENT
MACDILL AFB:				
ALTER CENTRAL COMMAND HEADQUARTERS	57,000	57,000	.....	THE PRESIDENT
MACDILL CENTCOM JOINT INTELLIGENCE CENTER	25,000	25,000	.....	THE PRESIDENT
PATRICK AFB:				
CHILD DEVELOPMENT CENTER	11,854	11,854	.....	THE PRESIDENT
TYNDALL AFB:				
FITNESS CENTER	19,014	19,014	.....	THE PRESIDENT
REPAIR AIRFIELD	25,100	25,100	.....	THE PRESIDENT
DEFENSE-WIDE:				
HURLBURT FIELD:				
SPECIAL OPERATIONS FORCES MAINTENANCE STORAGE FACILITY	4,711	4,711	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES SQUADRON OPERATIONS ADDITION	4,000	4,000	.....	THE PRESIDENT
SQUADRON OPERATIONS FORCES, OPERATIONS FACILITY	5,500	5,500	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES COMBAT WEATHER OPERATIONS FACILITY	14,900	14,900	.....	THE PRESIDENT
KEY WEST:				
REPLACE FUEL PUMP HOUSE	1,874	1,874	.....	THE PRESIDENT
MACDILL AFB:				
CLINIC REPLACEMENT, INCREMENT II	41,400	41,400	.....	THE PRESIDENT
PHARMACARE ADDITION/ALTERATION	5,000	5,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES 501–D BUILDING ADDITION PHASE 2	12,200	12,200	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES ACQUISITION CENTER	35,500	35,500	.....	THE PRESIDENT

ARMY NATIONAL GUARD:				
JACKSONVILLE:				
ARMY AVIATION SUPPORT FACILITY ADDITION/ALTERATION	12,200	12,200	.....	THE PRESIDENT
TOTAL, FLORIDA	757,993	649,393	−108,600	
GEORGIA				
ARMY:				
FORT BENNING:				
MODIFIED RECORD FIRE RANGE	5,800	5,800	.....	THE PRESIDENT
RECEPTION STATION, PHASE 1	51,000	51,000	.....	THE PRESIDENT
SIMULATIONS TRAINING FACILITY	56,000	56,000	.....	THE PRESIDENT
TRAINEE BARRACKS COMPLEX	73,000	73,000	.....	THE PRESIDENT
FORT STEWART:				
BARRACKS COMPLEX	36,000	36,000	.....	THE PRESIDENT
BARRACKS (GROW THE FORCE)	.....	25,000	+25,000	THE PRESIDENT
BRIGADE COMPLEX—HEADQUARTERS	26,000	26,000	.....	THE PRESIDENT
FIRE STATION (GROW THE FORCE)	.....	5,500	+5,500	THE PRESIDENT
UNIT OPERTATIONS FACILITIES (GROW THE FORCE)	.....	15,000	+15,000	THE PRESIDENT
HUNTER ARMY AIRFIELD:				
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	16,000	+16,000	THE PRESIDENT
AIR FORCE:				
ROBINS AFB:				
AIRCRAFT COMPONENT REPAIR FACILITY	14,700	14,700	.....	THE PRESIDENT
DEFENSE-WIDE:				
AUGUSTA:				
REGIONAL SECURITY OPERATION CENTER INCREMENT III	100,000	100,000	.....	THE PRESIDENT
FORT BENNING:				
SPECIAL OPERATIONS FORCES BATTALION COMPLEX	21,000	21,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES HEADQUARTERS BUILDING ADDITION	5,000	5,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES TACTICAL EQUIPMENT SHOP	9,000	9,000	.....	THE PRESIDENT
HUNTER AIR NATIONAL GUARD STATION:				
SPECIAL OPERATIONS FORCES SUPPORT COMPANY FACILITY	13,800	13,800	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
SAVANNAH AIR NATIONAL GUARD:				
TROOP DORMS	.....	9,000	+9,000	MR. CHAMBLISS/MR. ISAKSON
TOTAL, GEORGIA	411,300	481,800	+70,500	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
HAWAII				
ARMY:				
FORT SHAFTER:				
BARRACKS COMPLEX	31,000	31,000	.....	THE PRESIDENT
SCHOFIELD BARRACKS:				
BARRACKS COMPLEX	43,000	43,000	.....	THE PRESIDENT
BARRACKS COMPLEX	45,000	45,000	.....	THE PRESIDENT
WHEELER AFB:				
BARRACKS COMPLEX	51,000	51,000	.....	THE PRESIDENT
NAVY:				
KANEOHE BAY:				
BACHELOR ENLISTED QUARTERS	37,961	37,961	.....	THE PRESIDENT
PEARL HARBOR:				
DRY DOCK SHIP SUPPORT SERVICES	.....	30,200	+30,200	MR. INOUYE/MR. AKAKA
SUB DRIVE-IN MAGNETIC SILENCING FACILITY	99,860	99,860	.....	THE PRESIDENT
WAHIAWA:				
COMMUNICATION CENTER	65,410	65,410	.....	THE PRESIDENT
AIR FORCE:				
HICKAM AFB:				
C–17 PARKING RAMP	15,471	15,471	.....	THE PRESIDENT
DISTRIBUTED COMMON GROUND SYSTEM INTELLIGENCE SQUADRON OPERATIONS FACILITY	16,500	16,500	.....	THE PRESIDENT
DEFENSE-WIDE:				
HICKAM AFB:				
REPLACE HYDRANT FUELS SYSTEM	11,900	11,900	.....	THE PRESIDENT
KUNIA:				
REGIONAL SECURITY OPERATION CENTER INCREMENT III	136,318	136,318	.....	THE PRESIDENT
TOTAL, HAWAII	553,420	583,620	+30,200	

IDAHO				
ARMY NATIONAL GUARD:				
GOWEN FIELD:				
TRAINING AREA RAILHEAD	.....	7,615	+7,615	MR. CRAIG/MR. CRAPO
ORCHARD TRAINING AREA:				
URBAN ASSAULT COURSE	1,700	1,700	.....	THE PRESIDENT
TOTAL, IDAHO	1,700	9,315	+7,615	
ILLINOIS				
ARMY:				
ROCK ISLAND ARSENAL:				
COMBINED FIRE/POLICE FACILITY	.....	3,350	+3,350	MR. DURBIN/MR. OBAMA
NAVY:				
GREAT LAKES:				
RECRUIT TRAINING COMMAND INFRASTRUCTURE UPGRADE, INCREMENT 3	16,650	16,650	.....	THE PRESIDENT
SMALL ARMS MARKSMANSHIP TRAINER	10,221	10,221	.....	THE PRESIDENT
AIR FORCE:				
SCOTT AFB:				
CHILD DEVELOPMENT CENTER	.....	8,200	+8,200	MR. DURBIN
SECURITY FORCES OPERATIONS FACILITY	16,700	16,700	.....	THE PRESIDENT
DEFENSE-WIDE:				
GREAT LAKES:				
FEDERAL HEALTHCARE FACILITY	99,000	99,000	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
ST CLAIR COUNTY:				
READINESS CENTER (ARMY DIVISION REDESIGN STUDY)	8,100	8,100	.....	THE PRESIDENT
TOTAL, ILLINOIS	150,671	162,221	+11,550	
INDIANA				
NAVY:				
CRANE NAVAL SURFACE WARFARE CENTER:				
SECURED ELECTRONIC WARFARE SYSTEMS ENGINEERING FACILITY	.....	12,000	+12,000	MR. BAYH/MR. LUGAR
AIR NATIONAL GUARD:				
HULMAN REGIONAL AIRPORT:				
DIGITAL GROUND STATION BEDDOWN	7,700	7,700	.....	THE PRESIDENT
TOTAL, INDIANA	7,700	19,700	+12,000	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
IOWA				
ARMY NATIONAL GUARD:				
IOWA CITY:				
READINESS CENTER	.....	13,186	+13,186	MR. HARKIN/MR. GRASSLEY
TOTAL, IOWA	.....	13,186	+13,186	
KANSAS				
ARMY:				
FORT LEAVENWORTH:				
BARRACKS COMPLEX	55,000	55,000	.....	THE PRESIDENT
BARRACKS (GROW THE FORCE)	.....	12,800	+12,800	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	23,000	+23,000	THE PRESIDENT
FORT RILEY:				
BARRACKS (GROW THE FORCE)	.....	50,000	+50,000	THE PRESIDENT
CHILD DEVELOPEMENT CENTER (GROW THE FORCE)	.....	8,500	+8,500	THE PRESIDENT
DIGITAL MULTIPURPOSE RANGE COMPLEX	28,000	28,000	.....	THE PRESIDENT
HEALTH & DENTAL CLINIC (GROW THE FORCE)	.....	8,800	+8,800	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	43,000	+43,000	THE PRESIDENT
AIR FORCE:				
FORT RILEY:				
AIR SUPPORT OPERATIONS SQUADRON COMPLEX	12,515	12,515	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
SMOKY HILL AIR NATIONAL GUARD RANGE:				
AIR SUPPORT OPERATIONS SQUADRON BEDDOWN	.....	9,000	+9,000	MR. BROWNBACK
TOTAL, KANSAS	95,515	250,615	+155,100	

KENTUCKY				
ARMY:				
FORT CAMPBELL:				
BARRACKS (GROW THE FORCE)	.....	27,000	+27,000	THE PRESIDENT
INDOOR RANGE	5,000	5,000	.....	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	24,000	+24,000	THE PRESIDENT
VEHICLE MAINTENANCE SHOP	49,000	49,000	.....	THE PRESIDENT
FORT KNOX:				
CANTONMENT AREA ROADS, PAVED	6,700	6,700	.....	THE PRESIDENT
DEFENSE-WIDE:				
FORT CAMPBELL:				
SPECIAL OPERATIONS FORCES BATTALION OPERATIONS COMPLEX	35,000	35,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES GROUP SUPPORT BATTALION COMPLEX	18,500	18,500	.....	THE PRESIDENT
CHEMICAL DEMILITARIZATION CONSTRUCTION, DEFENSE WIDE:				
BLUE GRASS ARMY DEPOT:				
AMMUNITION DEMILITARIZATION FACILITY PH VIII	51,017	69,017	+18,000	THE PRESIDENT/MR. MCCONNELL
TOTAL, KENTUCKY	165,217	234,217	+69,000	
LOUISIANA				
ARMY:				
FORT POLK:				
4TH BRIGADE 10TH MOUNTAIN DIVISION HEADQUARTERS FACILITY	.....	9,800	+9,800	MRS. LANDRIEU/MR. VITTER
CHILD CARE CENTER	.....	6,100	+6,100	MRS. LANDRIEU/MR. VITTER
AIR NATIONAL GUARD:				
CAMP BEAUREGARD:				
UPGRADE AIR SUPPORT OPERATIONS SQUADRON FACILITY	1,800	1,800	.....	THE PRESIDENT
TOTAL, LOUISIANA	1,800	17,700	+15,900	
MAINE				
NAVY:				
PORTSMOUTH NAVAL SHIPYARD:				
CONSOLIDATED EMERGENCY CONTROL CENTER	.....	9,700	+9,700	MS COLLINS
TOTAL, MAINE	.....	9,700	+9,700	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
MARYLAND				
ARMY:				
ABERDEEN PROVING GROUND:				
AUTOMOTIVE TECHNOLOGY EVALUATION FACILITY	.....	12,200	+12,200	MS. MIKULSKI/MR. CARDIN
NAVY:				
PATUXENT RIVER:				
AIRCRAFT PROTOTYPE FACILITY PHASE 1	17,990	17,990	.....	THE PRESIDENT
E–2 ADVANCED HAWKEYE RESEARCH, DEVELOPMENT, TESTING, AND EVALUATION FACILITY	13,650	13,650	.....	THE PRESIDENT
JOINT PRECISION APPROACH AND LANDING SYSTEM ADDITION TO BUILDING 2110/2122	6,720	6,720	.....	THE PRESIDENT
SUITLAND:				
NATIONAL MARITIME INTELLIGENCE CENTER INCREMENT II	52,069	52,069	.....	THE PRESIDENT
DEFENSE-WIDE:				
FORT DETRICK:				
US ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES STAGE I, INC II	150,000	150,000	.....	THE PRESIDENT
FORT MEADE:				
NATIONAL SECURITY AGENCY WASHINGTON-OPS1 SOUTH STAIR TOWER	4,000	4,000	.....	THE PRESIDENT
NATIONAL SECURITY AGENCY WASHINGTON—POWER, SPACE, AND COOLING UTILITY MANAGEMENT SYSTEM PHII.	7,901	7,901	.....	THE PRESIDENT
TOTAL, MARYLAND	252,330	264,530	+12,200	
MASSACHUSETTS				
AIR FORCE:				
HANSCOM AFB:				
RENOVATE ACQUISITION MANAGEMENT FACILITY B1102C	.....	12,800	+12,800	MR. KENNEDY
AIR NATIONAL GUARD:				
OTIS AIR NATIONAL GUARD BASE:				
DIGITAL GROUND STATION INITIAL OPERATING CAPACITY BEDDOWN	1,800	1,800	.....	THE PRESIDENT
TOTAL, MASSACHUSETTS	1,800	14,600	+12,800	

MICHIGAN				
ARMY:				
DETROIT ARSENAL:				
GROUND SYSTEMS POWER AND ENERGY LABORATORY	.....	18,500	+18,500	MR. LEVIN/MS. STABENOW
ARMY NATIONAL GUARD:				
LANSING:				
US PROPERTY AND FISCAL OFFICE AND READINESS CENTER RENOVATION	.....	4,239	+4,239	MR. LEVIN/MS. STABENOW
CAMP GRAYLING:				
INFANTRY PLATOON BATTLE COURSE W/ CONVOY LIVE FIRE RANGE	.....	2,450	+2,450	MR. LEVIN/MS. STABENOW
NAVY RESERVE:				
SELFRIDGE:				
RESERVE TRAINING CENTER	4,030	4,030	.....	THE PRESIDENT
TOTAL, MICHIGAN	4,030	29,219	+25,189	
MINNESOTA				
ARMY NATIONAL GUARD:				
CAMP RIPLEY:				
COMBINED ARMS COLLECTIVE TRAINING FACILITY	4,850	4,850	.....	THE PRESIDENT
TOTAL, MINNESOTA	4,850	4,850	.....	
MISSISSIPPI				
NAVY:				
MERIDIAN NAVAL AIR STATION:				
FIRE STATION	.....	6,770	+6,770	MR. COCHRAN/MR. LOTT
DEFENSE-WIDE:				
JOHN C. STENNIS SPACE CENTER:				
SOF RIVERINE AND COMBATANT CRAFT OPERATIONS FACILITY	.....	10,200	+10,200	MR. COCHRAN/MR. LOTT
ARMY NATIONAL GUARD:				
CAMP SHELBY:				
LIVE FIRE SHOOT HOUSE/URBAN ASSAULT COURSE	.....	4,000	+4,000	MR. COCHRAN/MR. LOTT
TOTAL, MISSISSIPPI	.....	20,970	+20,970	
MISSOURI				
ARMY:				
FORT LEONARD WOOD:				
AUTOMATED MULTIPURPOSE MACHINE GUN RANGE (GROW THE FORCE)	.....	4,150	+4,150	THE PRESIDENT
AUTOMATED PISTOL RANGE (GROW THE FORCE)	.....	2,700	+2,700	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
BARRACKS (GROW THE FORCE)	.....	26,000	+26,000	THE PRESIDENT
CHILD DEVELOPMENT CENTER	.....	7,000	+7,000	MR. BOND
DINING FACILITY—BASIC COMBAT TRAINING COMPLEX (GROW THE FORCE)	.....	22,000	+22,000	THE PRESIDENT
MODIFIED RECORD FIRE RANGE	3,800	3,800	.....	THE PRESIDENT
MODIFIED RECORD FIRE RANGE	4,000	4,000	.....	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	56,000	+56,000	THE PRESIDENT
ARMY NATIONAL GUARD:				
WHITEMAN AFB:				
ARMY AVIATION SUPPORT FACILITY	30,000	30,000	.....	THE PRESIDENT
TOTAL, MISSOURI	37,800	155,650	+117,850	
MONTANA				
AIR FORCE:				
MALMSTROM AFB:				
CONSTRUCT COMMUNITY ACTIVITY CENTER	.....	7,000	+7,000	MR. BAUCUS/MR. TESTER
ARMY RESERVE:				
BUTTE:				
ARMY RESERVE CENTER/LAND	7,629	7,629	.....	THE PRESIDENT
TOTAL, MONTANA	7,629	14,629	+7,000	
NEBRASKA				
AIR FORCE:				
OFFUTT AFB:				
ADD/ALTER INTELLIGENCE SQUADRON FACILITY	16,952	16,952	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
LINCOLN MUNICIPAL AIRPORT:				
ADD/ALTER SECURITY FORCES COMMUNICATIONS COMPLEX	.....	8,900	+8,900	MR. BEN NELSON/MR. HAGEL
TOTAL, NEBRASKA	16,952	25,852	+8,900	

NEVADA				
ARMY:				
HAWTHORNE ARMY AMMUNITION PLANT:				
GROUND WATER TREATMENT PLANT	11,800	11,800	.....	THE PRESIDENT
NAVY:				
FALLON NAVAL AIR STATION:				
RANGE IMPROVEMENTS B–20	.....	11,460	+11,460	MR. REID/MR. ENSIGN
AIR FORCE:				
NELLIS AFB:				
JOINT TERMINAL AIR CONTROL VIRTUAL TRAINING FACILITY	.....	4,950	+4,950	MR. REID/MR. ENSIGN
AIR GUARD:				
RENO:				
VEHICLE MAINTENANCE COMPLEX	.....	5,200	+5,200	MR. REID/MR. ENSIGN
TOTAL, NEVADA	11,800	33,410	+21,610	
NEW HAMPSHIRE				
AIR NATIONAL GUARD:				
PEASE AIR NATIONAL GUARD BASE:				
WING HEADQUARTERS OPERATIONS AND TRAINING FACILITY	.....	8,900	+8,900	MR. GREGG/MR. SUNUNU
TOTAL, NEW HAMPSHIRE	.....	8,900	+8,900	
NEW JERSEY				
NAVY:				
LAKEHURST NAVAL AIR ENGINEERING STATION:				
JOINT INSTALLATION ROAD IMPROVEMENT	.....	4,100	+4,100	MR. LAUTENBERG/MR. MENENDEZ
ARMY RESERVE:				
FORT DIX:				
COMBINED MAINTENANCE FACILITY	17,000	17,000	.....	THE PRESIDENT
TOTAL, NEW JERSEY	17,000	21,100	+4,100	
NEW MEXICO				
ARMY:				
WHITE SANDS MISSLE RANGE:				
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	71,000	+71,000	THE PRESIDENT
AIR FORCE:				
CANNON AFB:				
ADD/ALTER HANGAR 09 FOR C–130	1,688	1,688	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
KIRTLAND AFB:				
PJ/CRO RESCUE AND RECOVERY TRAINING CENTER	.....	11,400	+11,400	MR. DOMENICI/MR. BINGAMAN
DEFENSE-WIDE:				
CANNON AFB:				
SPECIAL OPERATIONS FORCES FLIGHT SIMULATOR FACILITY	7,500	7,500	.....	THE PRESIDENT
KIRTLAND AFB:				
REPLACE FUEL UNLOAD FACILITY	1,800	1,800	.....	THE PRESIDENT
TOTAL, NEW MEXICO	10,988	93,388	+82,400	
NEW YORK				
ARMY:				
FORT DRUM:				
BARRACKS (GROW THE FORCE)	.....	61,000	+61,000	THE PRESIDENT
BRIGADE COMPLEX MAINTENANCE FACILITY	44,000	44,000	.....	THE PRESIDENT
BRIGADE COMPLEX—BARRACKS/OPERATIONS	40,000	40,000	.....	THE PRESIDENT
BRIGADE COMPLEX—COMPANY OPERATIONS	55,000	55,000	.....	THE PRESIDENT
INFRASTRUCTURE UPGRADES	12,000	12,000	.....	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	41,000	+41,000	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	38,000	+38,000	THE PRESIDENT
DEFENSE-WIDE:				
FORT DRUM:				
MEDICAL CLINIC ADDITION/ALTERATION	41,000	41,000	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
GABRESKI ANG BASE, WESTHAMPTON:				
PARARESCUE FACILITY PH 1	.....	8,400	+8,400	MR. SCHUMER/MRS. CLINTON
ARMY RESERVE:				
FORT DRUM:				
ARMY RESERVE CENTER	15,923	15,923	.....	THE PRESIDENT
TOTAL, NEW YORK	207,923	356,323	+148,400	

NORTH CAROLINA				
ARMY:				
FORT BRAGG:				
BARRACKS COMPLEX, INCREMENT 3	47,400	47,400	.....	THE PRESIDENT
BARRACKS (GROW THE FORCE)	.....	73,000	+73,000	THE PRESIDENT
BLOOD DONOR CENTER	.....	4,800	+4,800	MRS. DOLE
INDOOR RANGE	4,800	4,800	.....	THE PRESIDENT
STUDENT BARRACKS	51,000	51,000	.....	THE PRESIDENT
UNIT MAINTENANCE FACILITY (GROW THE FORCE)	.....	88,000	+88,000	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	54,000	+54,000	THE PRESIDENT
NAVY:				
CAMP LEJEUNE:				
ACADEMIC INSTRUCTION FACILITY	16,460	16,460	.....	THE PRESIDENT
BACHELOR ENLISTED QUARTERS—4TH MARINE EXPEDITIONARY BRIGADE	29,970	29,970	.....	THE PRESIDENT
BACHELOR ENLISTED QUARTERS—FRENCH CREEK	27,800	27,800	.....	THE PRESIDENT
BACHELOR ENLISTED QUARTERS—WOUNDED WARRIOR BATTALION (GROW THE FORCE)	.....	27,270	+27,270	THE PRESIDENT
FIELD MEDICAL SERVICE SCHOOL	8,080	8,080	.....	THE PRESIDENT
LANDFILL CELL (GROW THE FORCE)	.....	14,170	+14,170	THE PRESIDENT
MAIN GATE PHYSICAL SECURITY UPGRADE (GROW THE FORCE)	.....	7,920	+7,920	THE PRESIDENT
MARINE SPECIAL OPERATIONS COMMAND COMMUNITY SUPPORT FACILITIES	9,170	9,170	.....	THE PRESIDENT
MARINE SPECIAL OPERATIONS COMMAND FITNESS CENTER/ TRAINING TANK	14,480	14,480	.....	THE PRESIDENT
MARINE SPECIAL OPERATIONS COMMAND SUPPORT FACILITY	21,720	21,720	.....	THE PRESIDENT
MARINE SPECIAL OPERATIONS COMMAND TRAINING FACILITIES	12,590	12,590	.....	THE PRESIDENT
MOUT ENHANCEMENTS	14,120	14,120	.....	THE PRESIDENT
MULTI-PURPOSE MACHINE GUN RANGE—G10 (GROW THE FORCE)	.....	17,250	+17,250	THE PRESIDENT
PHYSICAL SECURITY UPGRADES—PINEY GREEN (GROW THE FORCE)	.....	6,660	+6,660	THE PRESIDENT
WASTEWATER SYSTEM MODIFICATION (GROW THE FORCE)	.....	7,070	+7,070	THE PRESIDENT
CHERRY POINT MARINE CORPS AIR STATION:				
HANGAR RENOVATION & FACILITY UPGRADES F/A18E/F	16,500	16,500	.....	THE PRESIDENT
UNMANNED AERIAL VEHICLE OPERATIONS/MAINTENANCE	12,110	12,110	.....	THE PRESIDENT
NEW RIVER:				
BACHELOR ENLISTED QUARTERS	22,530	22,530	.....	THE PRESIDENT
HANGAR ADDITION (PHASE 2)	17,330	17,330	.....	THE PRESIDENT
JET ENGINE TEST CELL	14,570	14,570	.....	THE PRESIDENT
NAVAL OUTLYING LANDING FIELD WASHINGTON COUNTY:				
FACILITIES & LAND ACQUISITION	10,060	.....	−10,060	THE PRESIDENT
DEFENSE-WIDE:				
CAMP LEJEUNE:				
DELALIO ELEMENTARY SCHOOL—CONSTRUCT GYMNASIUM	2,014	2,014	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES ACADEMIC INSTRUCTION FACILITY	6,910	6,910	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
SPECIAL OPERATIONS FORCES EQUIPMENT FACILITY	10,800	10,800	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES SUPPLY & PRE-DEPLOYMENT FACILITY	10,500	10,500	.....	THE PRESIDENT
FORT BRAGG:				
SPECIAL OPERATIONS FORCES HEADQUARTERS AND MOTOR POOL COMPLEX	39,250	39,250	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES OPERATIONS/INTELLIGENCE ADDITION	8,000	8,000	.....	THE PRESIDENT
TOTAL, NORTH CAROLINA	428,164	718,244	+290,080	
NORTH DAKOTA				
AIR FORCE:				
GRAND FORKS AFB:				
CONTROL TOWER/RAPCON	.....	13,000	+13,000	MR. DORGAN/MR. CONRAD
MINOT AFB:				
DORMITORY (144 ROOM)	18,200	18,200	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
CAMP GRAFTON:				
REGIONAL TRAINING INSTITUTE PHASE 1 (GROW THE FORCE)	.....	33,416	+33,416	THE PRESIDENT
TOTAL, NORTH DAKOTA	18,200	64,616	+46,416	
OHIO				
DEFENSE-WIDE:				
COLUMBUS:				
DECENTRALIZE HEAT PLANT	4,000	4,000	.....	THE PRESIDENT
NAVY RESERVE:				
WRIGHT-PATTERSON AFB:				
RESERVE TRAINING CENTER	10,277	10,277	.....	THE PRESIDENT
TOTAL, OHIO	14,277	14,277	.....	

OKLAHOMA				
ARMY:				
FORT SILL:				
MODIFIED RECORD FIRE RANGE	2,900	2,900	.....	THE PRESIDENT
MULTIPURPOSE MACHINE GUN RANGE	.....	3,300	+3,300	MR. INHOFE
AIR FORCE:				
ALTUS AFB:				
C–17 SHEET METAL COMPOSITE SHOP	2,000	2,000	.....	THE PRESIDENT
TINKER AFB:				
CONSOLIDATED FUEL OVERHAUL REPAIR & TEST FACILITY	34,600	34,600	.....	THE PRESIDENT
VANCE AFB:				
FUEL SYSTEM MAINTENANCE HANGAR	.....	7,700	+7,700	MR. INHOFE
TOTAL, OKLAHOMA	39,500	50,500	+11,000	
OREGON				
ARMY NATIONAL GUARD:				
ONTARIO:				
READINESS CENTER	11,000	11,000	.....	THE PRESIDENT
NAVY RESERVE:				
PORTLAND:				
OPERATIONAL FACILITIES MOBILE INSHORE UNDERSEA WARFARE UNIT 110/INSHORE BOAT UNIT 13	1,900	1,900	.....	THE PRESIDENT
TOTAL, OREGON	12,900	12,900	.....	
PENNSYLVANIA				
DEFENSE-WIDE:				
DEFENSE DISTRIBUTION DEPOT NEW CUMBERLAND:				
REPLACE CENTRAL HEAT PLANT	21,000	21,000	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
CARLISLE:				
READINESS CENTER (STRYKER BRIGADE COMPANY TEAM (SBCT))	7,800	7,800	.....	THE PRESIDENT
EAST FALLOWFIELD TOWNSHIP:				
READINESS CENTER (SBCT)	8,300	8,300	.....	THE PRESIDENT
FORT INDIANTOWN GAP:				
AMMUNITION SUPPLY POINT UPGRADE (SBCT)	9,500	9,500	.....	THE PRESIDENT
GETTYSBURG:				
READINESS CENTER (SBCT)	6,300	6,300	.....	THE PRESIDENT
GRATERFORD:				
FIELD MAINTENANCE SHOP (SBCT)	7,300	7,300	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
HANOVER:				
READINESS CENTER, ADDITION/ALTERATION (SBCT)	5,500	5,500	.....	THE PRESIDENT
HAZELTON:				
READINESS CENTER ADDITION/ALTERATION (SBCT)	5,600	5,600	.....	THE PRESIDENT
HOLIDAYSBURG:				
READINESS CENTER (SBCT)	9,400	9,400	.....	THE PRESIDENT
HUNTINGDON:				
READINESS CENTER (SBCT)	7,500	7,500	.....	THE PRESIDENT
KUTZTOWN:				
READINESS CENTER, ADDITION/ALTERATION (SBCT)	6,800	6,800	.....	THE PRESIDENT
LEBANON:				
READINESS CENTER, ADDITION/ALTERATION (SBCT)	7,800	7,800	.....	THE PRESIDENT
PHILADELPHIA:				
FIELD MAINTENANCE SHOP, ADDITION/ALTERATION (SBCT)	3,650	3,650	.....	THE PRESIDENT
READINESS CENTER, ALTERATION (SBCT)	10,000	10,000	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
FORT INDIANTOWN GAP:				
AIR SUPPORT OPERATIONS SQUADRON BEDDOWN	6,400	6,400	.....	THE PRESIDENT
OPERATIONS AND TRAINING FACILITY	.....	6,300	+6,300	MR. SPECTER/MR. CASEY
TOTAL, PENNSYLVANIA	122,850	129,150	+6,300	
RHODE ISLAND				
NAVY:				
NAVAL STATION NEWPORT:				
RECONSTRUCT WHARF BETWEEN PIERS 1&2	.....	9,900	+9,900	MR. REED
ARMY NATIONAL GUARD:				
EAST GREENWICH:				
READINESS CENTER	8,200	8,200	.....	THE PRESIDENT
NORTH KINGSTOWN:				
ARMY AVIATION SUPPORT FACILITY	33,000	33,000	.....	THE PRESIDENT

AIR NATIONAL GUARD:				
QUONSET STATE AIRPORT:				
SPECIAL OPERATIONS TRAINING FACILITY	.....	5,000	+5,000	MR. REED
TOTAL, RHODE ISLAND	41,200	56,100	+14,900	
SOUTH CAROLINA				
ARMY:				
FORT JACKSON:				
BASIC TRAINING COMPLEX (GROW THE FORCE)	.....	85,000	+85,000	THE PRESIDENT
NAVY:				
BEAUFORT:				
FIRE STATION	6,800	6,800	.....	THE PRESIDENT
PARRIS ISLAND:				
CONSOLIDATED DINING FACILITY (GROW THE FORCE)	.....	24,430	+24,430	THE PRESIDENT
MOTOR TRANSPORTATION COMPLEX	5,530	5,530	.....	THE PRESIDENT
RECRUIT BARRACKS—3RD BATTALION (PHASE 1)	25,322	25,322	.....	THE PRESIDENT
AIR FORCE:				
CHARLESTON AFB:				
CHILD DEVELOPMENT CENTER	.....	11,000	+11,000	MR. GRAHAM
TOTAL, SOUTH CAROLINA	37,652	158,082	+120,430	
SOUTH DAKOTA				
AIR FORCE:				
ELLSWORTH AFB:				
BASE CIVIL ENGINEER ADMINISTRATIVE FACILITY	.....	16,600	+16,600	MR. JOHNSON/MR. THUNE
AIR NATIONAL GUARD:				
JOE FOSS FIELD:				
BASE CIVIL ENGINEER MAINTENANCE COMPLEX	.....	7,900	+7,900	MR. JOHNSON/MR. THUNE
NAVY RESERVE:				
SIOUX FALLS:				
JOINT ARMED FORCES RESERVE CENTER	3,730	3,730	.....	THE PRESIDENT
TOTAL, SOUTH DAKOTA	3,730	28,230	+24,500	
TENNESSEE				
AIR NATIONAL GUARD:				
MCGHEE-TYSON AIRPORT:				
MILSTAR BEDDOWN—RELOCATE BASE ACCESS ROAD	3,200	3,200	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
MEMPHIS IAP:				
C–5 FINAL INFRASTRUCTURE SUPPORT	6,676	6,676	.....	THE PRESIDENT
C–5 GROUND RUN-UP ENCLOSURE	3,200	3,200	.....	THE PRESIDENT
C–5 MUNITIONS STORAGE COMPLEX	1,500	1,500	.....	THE PRESIDENT
TOTAL, TENNESSEE	14,576	14,576	.....	
TEXAS				
ARMY:				
CAMP BULLIS:				
URBAN ASSAULT COURSE	1,600	1,600	.....	THE PRESIDENT
FORT BLISS:				
BARRACKS (GROW THE FORCE)	.....	11,400	+11,400	THE PRESIDENT
HEALTH & DENTAL CLINIC (GROW THE FORCE)	.....	16,500	+16,500	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	84,000	+84,000	THE PRESIDENT
FORT HOOD:				
CHILD DEVELOPMENT CENTER	.....	7,400	+7,400	MRS. HUTCHISON/MR. CORNYN
BARRACKS COMPLEX	47,000	47,000	.....	THE PRESIDENT
BARRACKS (GROW THE FORCE)	.....	45,000	+45,000	THE PRESIDENT
UNITS OPERATIONS FACILITIES (GROW THE FORCE)	.....	46,000	+46,000	THE PRESIDENT
FORT SAM HOUSTON:				
BARRACKS (GROW THE FORCE)	.....	6,600	+6,600	THE PRESIDENT
BATTLE COMMAND TRAINING CENTER, PHASE 1	1,950	1,950	.....	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	10,600	+10,600	THE PRESIDENT
RED RIVER ARMY DEPOT:				
MANEUVER SYSTEMS SUSTAINMENT CENTER, PHASE 2	9,200	9,200	.....	THE PRESIDENT
NAVY:				
CORPUS CHRISTI:				
AVIATION TRAINER/SQUADRON OPERATIONS FACILITY	14,290	14,290	.....	THE PRESIDENT

AIR FORCE:				
LACKLAND AFB:				
BASIC EXPEDITIONARY AIRMAN SKILL TRAINING PHASE 2	14,000	14,000	.....	THE PRESIDENT
DEFENSE-WIDE:				
CAMP BULLIS:				
HEALTH CLINIC REPLACEMENT	7,400	7,400	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
CAMP BOWIE:				
MODIFIED RECORD FIRE RANGE	1,500	1,500	.....	THE PRESIDENT
FORT WOLTERS:				
MODIFIED RECORD FIRE RANGE	2,100	2,100	.....	THE PRESIDENT
ARMY RESERVE:				
ELLINGTON FIELD:				
ARMED FORCES RESERVE CENTER BATTLE PROJECTION CENTER (PHASE II)	.....	15,000	+15,000	MRS. HUTCHISON/MR. CORNYN
FORT WORTH:				
ARMY RESERVE CENTER	15,076	15,076	.....	THE PRESIDENT
NAVY RESERVE:				
AUSTIN:				
RESERVE TRAINING CENTER	6,490	6,490	.....	THE PRESIDENT
FORT WORTH:				
AIRCRAFT MAINTENANCE DEPARTMENT PARKING FACILITY	5,140	5,140	.....	THE PRESIDENT
CHILD DEVELOPMENT CENTER	4,920	4,920	.....	THE PRESIDENT
JOINT CONTROL TOWER	12,454	12,454	.....	THE PRESIDENT
TOTAL, TEXAS	143,120	385,620	+242,500	
UTAH				
AIR FORCE:				
HILL AFB:				
AIRCRAFT POWER SYSTEMS REPAIR FACILITY	8,399	8,399	.....	THE PRESIDENT
CONSOLIDATED 388TH MUNITIONS FLIGHT ADMINISTRATIVE/MAINTENANCE FACILITY	.....	9,200	+9,200	MR. BENNETT/MR. HATCH
HYDRAULIC FLIGHT CONTROL FACILITY	8,400	8,400	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
NORTH SALT LAKE:				
READINESS CENTER	12,200	12,200	.....	THE PRESIDENT
AIR FORCE RESERVE:				
HILL AFB:				
WING SUPPORT FACILITY	3,200	3,200	.....	THE PRESIDENT
TOTAL, UTAH	32,199	41,399	+9,200	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
VERMONT				
ARMY NATIONAL GUARD:				
ETHAN ALLEN RANGE, JERICHO:				
MULTIPURPOSE MACHINE GUN RANGE	.....	1,996	+1,996	MR. LEAHY/MR. SANDERS
AIR NATIONAL GUARD:				
BURLINGTON INTERNATIONAL AIRPORT:				
BASE SECURITY IMPROVEMENTS	.....	6,600	+6,600	MR. LEAHY/MR. SANDERS
TOTAL, VERMONT	.....	8,596	+8,596	
VIRGINIA				
ARMY:				
FORT BELVOIR:				
DEFENSE ACCESS ROAD PHASE 3	13,000	13,000	.....	THE PRESIDENT
FORT EUSTIS:				
BARRACKS (GROW THE FORCE)	.....	32,000	+32,000	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	43,000	+43,000	THE PRESIDENT
BARRACKS (GROW THE FORCE)	.....	6,900	+6,900	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	9,800	+9,800	THE PRESIDENT
FORT MYER:				
BARRACKS (GROW THE FORCE)	.....	12,400	+12,400	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	8,400	+8,400	THE PRESIDENT
NAVY:				
CHESAPEAKE:				
MOBILE USER OBJECTIVE SYSTEM INSTALLATION	8,450	8,450	.....	THE PRESIDENT
NORFOLK:				
E2/C2 AIRCREW TRAINING FACILITY	11,510	11,510	.....	THE PRESIDENT
JOINT FORCES COMMAND, HEADQUARTERS, BUILDING ONE	.....	14,200	+14,200	MR. WARNER/MR. WEBB
MH–60S HANGAR & AIRFIELD IMPROVEMENTS	53,850	53,850	.....	THE PRESIDENT

QUANTICO:				
BACHELOR ENLISTED QUARTERS—MARINE SECURITY GUARD BATTALION HEADQUARTERS	18,839	18,839	.....	THE PRESIDENT
STUDENT QUARTERS—THE BASIC SCHOOL (PHASE 2)	26,680	26,680	.....	THE PRESIDENT
WARFARE PROGRAMS SUPPORT CENTER (GROW THE FORCE)	.....	5,000	+5,000	THE PRESIDENT
DEFENSE-WIDE:				
DAM NECK:				
SPECIAL OPERATIONS FORCES OPERATIONAL TRAINING FACILITY	14,000	14,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES OPERATIONS FACILITY INCREMENT I	94,500	47,250	−47,250	THE PRESIDENT
FORT BELVOIR:				
ENTRANCE GATE SECURITY ENHANCEMENTS	5,000	5,000	.....	THE PRESIDENT
LITTLE CREEK:				
SPECIAL OPERATIONS FORCES HEADQUARTERS FACILITY	51,000	51,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES SEAL TEAM OPERATIONS AND SUPPORT FACILITY	34,000	34,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES SPECIAL BOAT TEAM OPERATIONS FACILITY	14,000	14,000	.....	THE PRESIDENT
NORFOLK:				
ENVIRONMENTAL PREVENTIVE MEDICINE UNIT 2 REPLACEMENT	6,450	6,450	.....	THE PRESIDENT
PENTAGON:				
PENTAGON RESERVATION ELECTRICAL UPGRADES	18,531	.....	−18,531	THE PRESIDENT
ARMY NATIONAL GUARD:				
FORT PICKETT:				
COMBAT PISTOL QUALIFICATION COURSE	1,050	1,050	.....	THE PRESIDENT
REGIONAL TRAINING INSTITUTE PHASE 1 (GROW THE FORCE)	.....	25,161	+25,161	THE PRESIDENT
WINCHESTER:				
FIELD MAINTENANCE SHOP	.....	3,113	+3,113	MR. WARNER/MR. WEBB
NAVY RESERVE:				
QUANTICO:				
RESERVE CENTER ADDITIONS	2,410	2,410	.....	THE PRESIDENT
TOTAL, VIRGINIA	373,270	467,463	+94,193	
WASHINGTON				
ARMY:				
FORT LEWIS:				
BARRACKS (GROW THE FORCE)	.....	32,000	+32,000	THE PRESIDENT
BRIGADE COMPLEX, INCREMENT 2	102,000	102,000	.....	THE PRESIDENT
INDOOR RANGE	5,000	5,000	.....	THE PRESIDENT
RAILROAD YARD UPGRADE (GROW THE FORCE)	.....	14,600	+14,600	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	62,000	+62,000	THE PRESIDENT
UNIT OPERATIONS FACILITIES (GROW THE FORCE)	.....	51,000	+51,000	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
YAKIMA:				
DIGITAL MULTIPURPOSE RANGE COMPLEX	29,000	29,000	.....	THE PRESIDENT
NAVY:				
BANGOR:				
LIMITED AREA PRODUCTION & STORAGE COMPLEX INCREMENT IV	39,750	39,750	.....	THE PRESIDENT
BREMERTON:				
BACHELOR ENLISTED QUARTERS HOMEPORT ASHORE INCREMENT II	47,240	47,240	.....	THE PRESIDENT
NUCLEAR AIRCRAFT CARRIER MAINTENANCE PIER REPLACEMENT	91,070	91,070	.....	THE PRESIDENT
MISSILE ASSEMBLY BUILDING 3	28,690	28,690	.....	THE PRESIDENT
NAVAL STATION EVERETT:				
FLEET REGION READINESS CENTER	.....	10,940	+10,940	MRS. MURRAY
WHIDBEY ISLAND:				
EA–18G FACILITY IMPROVEMENTS	23,910	23,910	.....	THE PRESIDENT
DEFENSE-WIDE:				
FORT LEWIS:				
MEDICAL/DENTAL CLINIC	21,000	21,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES BATTALION OPERATIONS COMPLEX	47,000	47,000	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES SUPPORT BATTALION COMPLEX	30,000	30,000	.....	THE PRESIDENT
TOTAL, WASHINGTON	464,660	635,200	+170,540	
WEST VIRGINIA				
ARMY NATIONAL GUARD:				
CAMP DAWSON:				
MODIFIED RECORD FIRE RANGE	4,500	4,500	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
EASTERN WEST VIRGINIA REGIONAL AIRPORT—SHEPHERD:				
FIELD:				
C–5 FINAL INFRASTRUCTURE UPGRADE	5,176	5,176	.....	THE PRESIDENT
C–5 FUEL CELL MAINTENANCE HANGAR AND SHOPS	26,000	26,000	.....	THE PRESIDENT
C–5 PARKING APRON, PHASE 2	.....	12,000	+12,000	MR. BYRD

C–5 SQUADRON OPERATIONS FACILITY	7,600	7,600	.....	THE PRESIDENT
YEAGER ANG BASE:				
REPLACE AIRCRAFT MAINTENANCE HANGAR	.....	17,300	+17,300	MR. BYRD
TOTAL, WEST VIRGINIA	43,276	72,576	+29,300	
WISCONSIN				
ARMY RESERVE:				
ELLSWORTH:				
ARMY RESERVE CENTER/LAND	9,100	9,100	.....	THE PRESIDENT
FORT MCCOY:				
REGIONAL MEDICAL TRAINING FACILITY	8,523	8,523	.....	THE PRESIDENT
AIR NATIONAL GUARD:				
TRUAX FIELD MADISON:				
ADD/ALTER FIRE CRASH/RESCUE STATION	.....	7,000	+7,000	MR. KOHL
TOTAL, WISCONSIN	17,623	24,623	+7,000	
WYOMING				
AIR FORCE:				
F. E. WARREN AFB:				
RENOVATE HISTORIC DORMITORIES	14,600	14,600	.....	THE PRESIDENT
ARMY NATIONAL GUARD:				
CAMP GUERNSEY:				
QUALIFICATION TRAINING RANGE	2,650	2,650	.....	THE PRESIDENT
TOTAL, WYOMING	17,250	17,250	.....	
AFGHANISTAN				
ARMY:				
BAGRAM:				
ADMINISTRATIVE BUILDING	13,800	13,800	.....	THE PRESIDENT
TOTAL, AFGHANISTAN	13,800	13,800	.....	
BAHRAIN ISLAND				
NAVY:				
SOUTHWEST ASIA:				
WATERFRONT DEVELOPMENT PHASE 1	35,500	35,500	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
DEFENSE-WIDE:				
SOUTHWEST ASIA:				
SPECIAL OPERATIONS FORCES OPERATIONS FACILITY	19,000	19,000		THE PRESIDENT
TOTAL, BAHRAIN ISLAND	54,500	54,500		
BELGIUM				
DEFENSE-WIDE:				
CASTEAU:				
BRUSSELS AMERCIAN SCHOOL ADDITION	5,992	5,992		THE PRESIDENT
TOTAL, BELGIUM	5,992	5,992		
BULGARIA				
ARMY:				
NEVO SELO FORWARD OPERATING SITE:				
BASE CAMP	61,000	61,000		THE PRESIDENT
TOTAL, BULGARIA	61,000	61,000		
DIEGO GARCIA				
NAVY:				
DIEGO GARCIA:				
SEWAGE LAGOON, AIR OPERATIONS	7,150	7,150		THE PRESIDENT
TOTAL, DIEGO GARCIA	7,150	7,150		

DJIBOUTI				
NAVY:				
DJIBOUTI:				
FULL LENGTH TAXIWAY	15,490	15,490	.....	THE PRESIDENT
FUEL FARM	4,000	4,000	.....	THE PRESIDENT
WESTERN TAXIWAY	2,900	.....	−2,900	THE PRESIDENT
TOTAL, DJIBOUTI	22,390	19,490	−2,900	
GERMANY				
ARMY:				
GRAFENWOEHR:				
BRIGADE COMPLEX—MAINTENANCE/OPERATIONS	34,000	34,000	.....	THE PRESIDENT
BRIGADE COMPLEX—MAINTENANCE/OPERATIONS	28,000	28,000	.....	THE PRESIDENT
AIR FORCE:				
RAMSTEIN AIR BASE:				
DORMITORY—128 ROOM	14,949	14,949	.....	THE PRESIDENT
FIRE TRAINING FACILITY	3,000	3,000	.....	THE PRESIDENT
JOINT MOBILITY PROCESSING CENTER	24,000	24,000	.....	THE PRESIDENT
SMALL DIAMETER BOMB FACILITIES PHASE 2	6,260	6,260	.....	THE PRESIDENT
DEFENSE-WIDE:				
RAMSTEIN AIR BASE:				
RAMSTEIN INTERMEDIATE SCHOOL ADDITION	5,393	5,393	.....	THE PRESIDENT
SPANGDAHLEM AIR BASE:				
MEDICAL CLINIC REPLACEMENT	30,100	30,100	.....	THE PRESIDENT
WEISBADEN:				
H.H. ARNOLD HIGH SCHOOL ADDITION	15,379	15,379	.....	THE PRESIDENT
HAINERBER ELEMENTARY SCHOOL/WEIS MIDDLE SCHOOL ADDITION	5,093	5,093	.....	THE PRESIDENT
TOTAL, GERMANY	166,174	166,174	.....	
GUAM				
NAVY:				
NAVAL BASE GUAM:				
FITNESS CENTER GUAM	45,250	30,000	−15,250	THE PRESIDENT
HARDEN BASE ELECTRICAL SYSTEMS	59,420	59,420	.....	THE PRESIDENT
KILO WHARF EXTENSION, INCREMENT I	101,828	50,916	−50,912	THE PRESIDENT
POTABLE WATER DISTRIBUTION SYSTEM PHASE 1	31,450	31,450	.....	THE PRESIDENT
WASTEWATER TREATMENT PLANT REPAIRS & UPGRADE	40,870	40,870	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
AIR FORCE:				
ANDERSEN AFB:				
UPGRADE NORTHWEST FIELD INFRASTRUCTURE	10,000	10,000	.....	THE PRESIDENT
TOTAL, GUAM	288,818	222,656	−66,162	
HONDURAS				
ARMY:				
HONDURAS VARIOUS:				
DINING FACILITY	2,550	2,550	.....	THE PRESIDENT
TOTAL, HONDURAS	2,550	2,550	.....	
ITALY				
ARMY:				
VICENZA:				
BRIGADE COMPLEX—BARRACKS/COMMUNITY FACILITY INCREMENT I	86,000	43,000	−43,000	THE PRESIDENT
BRIGADE COMPLEX—OPERATIONS SUPPORT FACILITY INCREMENT I	87,000	43,500	−43,500	THE PRESIDENT
TOTAL, ITALY	173,000	86,500	−86,500	
JAPAN				
NAVY:				
YOKOSUKA:				
WHARF UPGRADES (INCREMENTED)	8,750	8,750	.....	THE PRESIDENT
TOTAL, JAPAN	8,750	8,750	.....	

KOREA				
ARMY:				
CAMP HUMPHREYS:				
BARRACKS COMPLEX	22,000	22,000	.....	THE PRESIDENT
BARRACKS COMPLEX	35,000	35,000	.....	THE PRESIDENT
TOTAL, KOREA	57,000	57,000	.....	
QATAR				
AIR FORCE:				
AL UDEID:				
MULTI AIRCRAFT MAINTENANCE HANGAR	22,300	22,300	.....	THE PRESIDENT
DEFENSE-WIDE:				
AL UDEID:				
SPECIAL OPERATIONS FORCES AIR OPERATIONS CENTER	8,332	8,332	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES AIRCRAFT PARKING RAMP	18,515	18,515	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES OPERATIONS COMPLEX	18,908	18,908	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES STORAGE FACILITY	3,590	3,590	.....	THE PRESIDENT
SPECIAL OPERATIONS FORCES VEHICLE MAINTENANCE FACILITY	3,507	3,507	.....	THE PRESIDENT
TOTAL, QATAR	75,152	75,152	.....	
ROMANIA				
ARMY:				
MIHAIL KOGALNICEANU FOS:				
BASE CAMP, PHASE 2	12,600	12,600	.....	THE PRESIDENT
TOTAL, ROMANIA	12,600	12,600	.....	
SPAIN				
AIR FORCE:				
MORON:				
TACTICAL LEADERSHIP PROGRAM DORM (400 ROOM)	1,800	1,800	.....	THE PRESIDENT
TOTAL, SPAIN	1,800	1,800	.....	
UNITED KINGDOM				
AIR FORCE:				
MENWITH HILL STATION:				
ADD/ALTER OPERATIONS AND TECHNICAL FACILITY	31,000	31,000	.....	THE PRESIDENT

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
POWER AVAILABILITY & INFRASTRUCTURE IMPROVEMENTS	10,000	10,000	.....	THE PRESIDENT
ROYAL AIR FORCE LAKENHEATH:				
F–15C SQUAD OPERATIONS/AIRCRAFT MAINTENANCE UNIT	15,500	15,500	.....	THE PRESIDENT
SMALL DIAMETER BOMB-STORAGE IGLOO	1,800	1,800	.....	THE PRESIDENT
TOTAL, UNITED KINGDOM	58,300	58,300	.....	
NATO SECURITY INVESTMENT PROGRAM	201,400	201,400	.....	
WORLDWIDE CLASSIFIED				
AIR FORCE:				
SPECIAL EVALUATION PROGRAM	4,051	2,439	−1,612	THE PRESIDENT
SPECIAL EVALUATION PROGRAM	9,889	9,889	.....	THE PRESIDENT
CLASSIFIED MILCON PROJECT	1,500	1,500	.....	THE PRESIDENT
DEFENSE-WIDE:				
CLASSIFIED MILCON PROJECT	1,887	1,887	.....	THE PRESIDENT
TOTAL, WORLDWIDE CLASSIFIED	17,327	15,715	−1,612	
WORLDWIDE UNSPECIFIED				
ARMY:				
GROW THE FORCE	1,608,129	.....	−1,608,129	
HOST NATION SUPPORT	23,000	23,000	.....	
MINOR CONSTRUCTION	23,000	25,900	+2,900	
PLANNING AND DESIGN	458,468	84,670	−373,798	
PLANNING AND DESIGN (GROW THE FORCE)	.....	232,479	+232,479	
NAVY:				
GROW THE FORCE	361,120	.....	−361,120	
WHARF UTILITIES UPGRADE	8,900	8,900	.....	
HOST NATION INFRASTRUCTURE	2,700	2,700	.....	
PLANNING AND DESIGN	110,167	93,466	−16,701	

MARINE CORPS PLANNING AND DESIGN (GROW THE FORCE)	.....	21,792	+21,792
MINOR CONSTRUCTION	10,000	17,000	+7,000
AIR FORCE:			
PLANNING AND DESIGN	51,587	64,958	+13,371
MINOR CONSTRUCTION	15,000	15,000	.....
DEFENSE-WIDE:			
CONTINGENCY CONSTRUCTION	10,000	10,000	.....
ENERGY CONSERVATION INVESTMENT PROGRAM	70,000	85,000	+15,000
PLANNING AND DESIGN:			
DEPARTMENT OF DEFENSE DEPENDENT EDUCATION	3,400	3,400	.....
NATIONAL SECURITY AGENCY	26,749	26,749	.....
SPECIAL OPERATIONS COMMAND	19,679	19,679	.....
TRICARE MANAGEMENT ACTIVITY	69,000	69,000	.....
UNDISTRIBUTED	35,900	35,900	.....
SUBTOTAL, PLANNING AND DESIGN	154,728	154,728	.....
UNSPECIFIED MINOR CONSTRUCTION:			
DEFENSE LOGISTICS AGENCY	4,100	4,100	.....
DEPARTMENT OF DEFENSE DEPENDENT EDUCATION	666	666	.....
THE JOINT STAFF	8,753	8,753	.....
SPECIAL OPERATIONS COMMAND	3,693	3,693	.....
TRICARE MANAGEMENT ACTIVITY	3,499	3,499	.....
UNDISTRIBUTED	3,000	3,000	.....
SUBTOTAL, UNSPECIFIED MINOR CONSTRUCTION	23,711	23,711	.....
ARMY NATIONAL GUARD:			
GROW THE FORCE	77,000	.....	−77,000
PLANNING AND DESIGN	43,841	40,017	−3,824
PLANNING AND DESIGN (GROW THE FORCE)	.....	17,000	+17,000
MINOR CONSTRUCTION	8,700	22,600	+13,900
AIR NATIONAL GUARD:			
PLANNING AND DESIGN	7,965	20,943	+12,978
MINOR CONSTRUCTION	6,500	7,400	+900
ARMY RESERVE:			
PLANNING AND DESIGN	10,958	11,698	+740
MINOR CONSTRUCTION	3,000	6,000	+3,000
NAVY RESERVE:			
PLANNING AND DESIGN	2,219	2,219	.....

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
AIR FORCE RESERVE:				
PLANNING AND DESIGN	3,500	4,500	+1,000	
MINOR CONSTRUCTION	4,909	4,909	.....	
RESCISSION	.....	−3,100	−3,100	
TOTAL, WORLDWIDE UNSPECIFIED	3,099,102	997,490	−2,101,612	
FAMILY HOUSING, ARMY				
GERMANY:				
ANSBACH (URLAS TRAINING AREA)	52,000	52,000	.....	THE PRESIDENT
CONSTRUCTION IMPROVEMENTS	365,400	99,400	−266,000	
CONSTRUCTION IMPROVEMENTS (GROW THE FORCE)	.....	266,000	+266,000	
PLANNING AND DESIGN	2,000	2,000	.....	
SUBTOTAL, CONSTRUCTION	419,400	419,400	.....	
OPERATION AND MAINTENANCE:				
UTILITIES ACCOUNT	145,366	145,366	.....	
SERVICES ACCOUNT	29,500	29,500	.....	
MANAGEMENT ACCOUNT	64,864	53,007	−11,857	
OPERATIONS (GROW THE FORCE)	.....	11,857	+11,857	
MISCELLANEOUS ACCOUNT	12,985	12,985	.....	
FURNISHINGS ACCOUNT	31,940	31,940	.....	
LEASING	206,129	206,129	.....	
MAINTENANCE OF REAL PROPERTY	215,585	215,585	.....	
PRIVATIZATION SUPPORT COSTS	36,551	36,551	.....	
SUBTOTAL, OPERATION AND MAINTENANCE	742,920	742,920	.....	
TOTAL, FAMILY HOUSING, ARMY	1,162,320	1,162,320	.....	

FAMILY HOUSING, NAVY AND MARINE CORPS				
GUAM:				
NAVAL BASE GUAM—OLD APRA PHASE II (73 UNITS)	57,167	47,167	−10,000	THE PRESIDENT
CONSTRUCTION IMPROVEMENTS	237,990	162,990	−75,000	
USMC FAMILY HOUSING (GROW THE FORCE)	.....	75,000	+75,000	
PLANNING AND DESIGN	3,172	3,172	.....	
SUBTOTAL, CONSTRUCTION	298,329	288,329	−10,000	
OPERATION AND MAINTENANCE:				
UTILITIES ACCOUNT	41,802	41,802	.....	
SERVICES ACCOUNT	13,155	13,155	.....	
MANAGEMENT ACCOUNT	59,422	59,422	.....	
MISCELLANEOUS ACCOUNT	640	640	.....	
FURNISHINGS ACCOUNT	14,962	14,962	.....	
LEASING	141,757	141,757	.....	
MAINTENANCE OF REAL PROPERTY	70,678	70,678	.....	
PRIVATIZATION SUPPORT COSTS	28,988	28,988	.....	
SUBTOTAL, OPERATION AND MAINTENANCE	371,404	371,404	.....	
TOTAL, FAMILY HOUSING, NAVY AND MARINE CORPS	669,733	659,733	−10,000	
FAMILY HOUSING, AIR FORCE				
GERMANY:				
RAMSTEIN (117 UNITS)	56,275	56,275	.....	THE PRESIDENT
CONSTRUCTION IMPROVEMENTS	294,262	294,262	.....	
PLANNING AND DESIGN	12,210	12,210	.....	
SUBTOTAL, CONSTRUCTION	362,747	362,747	.....	
OPERATION AND MAINTENANCE:				
UTILITIES ACCOUNT	100,176	100,176	.....	
MANAGEMENT ACCOUNT	56,736	56,736	.....	
SERVICES ACCOUNT	20,673	20,673	.....	
FURNISHINGS ACCOUNT	43,472	43,472	.....	
MISCELLANEOUS ACCOUNT	1,960	1,960	.....	
LEASING	114,394	114,394	.....	
MAINTENANCE	298,465	298,465	.....	
DEBT ACCOUNT	1	1	.....	

MILITARY CONSTRUCTION PROJECT LISTING BY LOCATION—Continued

[In thousands of dollars]

Installation and project	Budget estimate	Committee recommendation	Senate Committee recommendation compared with budget estimate (+ or −)	Requested by
PRIVATIZATION SUPPORT COSTS	52,458	52,458	.....	
SUBTOTAL, OPERATION AND MAINTENANCE	688,335	688,335	.....	
TOTAL, FAMILY HOUSING, AIR FORCE	1,051,082	1,051,082	.....	
FAMILY HOUSING, DEFENSE-WIDE				
OPERATION AND MAINTENANCE:				
UTILITIES ACCOUNT (NSA)	7	7	.....	
OPERATIONS ACCOUNT (NSA)	27	27	.....	
LEASING (NSA)	10,534	10,534	.....	
MAINTENANCE OF REAL PROPERTY (NSA)	70	70	.....	
FURNISHINGS ACCOUNT (DIA)	4,274	4,274	.....	
LEASING (DIA)	32,662	32,662	.....	
UTILITIES ACCOUNT (DLA)	445	445	.....	
FURNISHINGS ACCOUNT (DLA)	104	104	.....	
SERVICES ACCOUNT (DLA)	49	49	.....	
MANAGEMENT ACCOUNT (DLA)	410	410	.....	
MAINTENANCE OF REAL PROPERTY (DLA)	266	266	.....	
SUBTOTAL, OPERATION AND MAINTENANCE	48,848	48,848	.....	
TOTAL, FAMILY HOUSING, DEFENSE-WIDE	48,848	48,848	.....	
DOD FAMILY HOUSING IMPROVEMENT FUND	500	500	.....	
BASE REALIGNMENT AND CLOSURE				
BASE REALIGNMENT AND CLOSURE ACCOUNT, 1990	220,689	320,689	+100,000	
BASE REALIGNMENT AND CLOSURE ACCOUNT, 2005	8,174,315	8,174,315	.....	

TOTAL, BASE REALIGNMENT AND CLOSURE	8,395,004	8,495,004	+100,000
GRAND TOTAL	21,165,182	21,556,664	+391,482
RECAP			
ARMY	4,039,197	3,928,149	−111,048
NAVY AND MARINE CORPS	2,104,276	2,168,315	+64,039
AIR FORCE	912,109	1,048,518	+136,409
DEFENSE-WIDE	1,799,336	1,758,755	−40,581
ARMY NATIONAL GUARD	404,291	478,836	+74,545
AIR NATIONAL GUARD	85,517	228,995	+143,478
ARMY RESERVE	119,684	138,424	+18,740
NAVY RESERVE	59,150	59,150	.....
AIR FORCE RESERVE	26,559	27,559	+1,000
RESCISSION	.....	−3,100	−3,100
NATO INFRASTRUCTURE	201,400	201,400	.....
FAMILY HOUSING, ARMY	1,162,320	1,162,320	.....
(CONSTRUCTION)	(419,400)	(419,400)	.....
(OPERATION AND MAINTENANCE)	(742,920)	(742,920)	.....
FAMILY HOUSING, NAVY AND MARINE CORPS	669,733	659,733	−10,000
(CONSTRUCTION)	(298,329)	(288,329)	(−10,000)
(OPERATION AND MAINTENANCE)	(371,404)	(371,404)	.....
FAMILY HOUSING, AIR FORCE	1,051,082	1,051,082	.....
(CONSTRUCTION)	(362,747)	(362,747)	.....
(OPERATION AND MAINTENANCE)	(688,335)	(688,335)	.....
FAMILY HOUSING, DEFENSE-WIDE	48,848	48,848	.....
(CONSTRUCTION)	.....	.....	.....
(OPERATION AND MAINTENANCE)	(48,848)	(48,848)	.....
CHEMICAL DEMILITARIZATION CONSTRUCTION	86,176	104,176	+18,000
DEPARTMENT OF DEFENSE FAMILY HOUSING IMPROVEMENT FUND.	500	500	.....
BASE REALIGNMENT AND CLOSURE	8,395,004	8,495,004	+100,000
GRAND TOTAL	21,165,182	21,556,664	+391,482

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2007 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL FOR FISCAL YEAR 2008

[In thousands of dollars]

Item	2007 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or −)	
				2007 appropriation	Budget estimate
TITLE I—DEPARTMENT OF DEFENSE					
Military construction, Army	2,013,000	4,039,197	3,928,149	+1,915,149	−111,048
Emergency appropriations	1,255,890			−1,255,890	
Rescissions	−43,348			+43,348	
Total	3,225,542	4,039,197	3,928,149	+702,607	−111,048
Military construction, Navy and Marine Corps	1,129,000	2,104,276	2,168,315	+1,039,315	+64,039
Emergency appropriations	370,990			−370,990	
Rescissions	−27,500			+27,500	
Total	1,472,490	2,104,276	2,168,315	+695,825	+64,039
Military construction, Air Force	1,083,000	912,109	1,048,518	−34,482	+136,409
Emergency appropriations	43,300			−43,300	
Rescissions	−2,694			+2,694	
Total	1,123,606	912,109	1,048,518	−75,088	+136,409
Military construction, Defense-Wide	1,127,000	1,799,336	1,758,755	+631,755	−40,581
Rescissions	−110,229			+110,229	
Total	1,016,771	1,799,336	1,758,755	+741,984	−40,581
Total, Active components	6,838,409	8,854,918	8,903,737	+2,065,328	+48,819
Military construction, Army National Guard	473,000	404,291	478,836	+5,836	+74,545
Rescissions	−2,129			+2,129	
Total	470,871	404,291	478,836	+7,965	+74,545
Military construction, Air National Guard	126,000	85,517	228,995	+102,995	+143,478
Military construction, Army Reserve	166,000	119,684	138,424	−27,576	+18,740

Military construction, Navy Reserve	43,000	59,150	59,150	+16,150	.....
Military construction, Air Force Reserve	45,000	26,559	27,559	−17,441	+1,000
Rescissions	.....	.....	−3,100	−3,100	−3,100
Total, Reserve components	850,871	695,201	929,864	+78,993	+234,663
Total, Military construction	7,689,280	9,550,119	9,833,601	+2,144,321	+283,482
Appropriations	(6,205,000)	(9,550,119)	(9,836,701)	(+3,631,701)	(+286,582)
Emergency appropriations	(1,670,180)	.....	.....	(−1,670,180)	.....
Rescissions	(−185,900)	.....	(−3,100)	(+182,800)	(−3,100)
North Atlantic Treaty Organization Security Investment Program	204,789	201,400	201,400	−3,389	.....
Family housing construction, Army	579,000	419,400	419,400	−159,600	.....
Family housing operation and maintenance, Army	671,000	742,920	742,920	+71,920	.....
Family housing construction, Navy and Marine Corps	305,000	298,329	288,329	−16,671	−10,000
Family housing operation and maintenance, Navy and Marine Corps	505,000	371,404	371,404	−133,596	.....
Family housing construction, Air Force	1,168,000	362,747	362,747	−805,253	.....
Rescissions	−18,000	.....	.....	+18,000	.....
Total	1,150,000	362,747	362,747	−787,253	.....
Family housing operation and maintenance, Air Force	750,000	688,335	688,335	−61,665	.....
Family housing construction, Defense-Wide	9,000	.....	.....	−9,000	.....
Family housing operation and maintenance, Defense-Wide	49,000	48,848	48,848	−152	.....
Department of Defense Family Housing Improvement Fund	2,475	500	500	−1,975	.....
Total, Family housing	4,020,475	2,932,483	2,922,483	−1,097,992	−10,000
Appropriations	(4,038,475)	(2,932,483)	(2,922,483)	(−1,115,992)	(−10,000)
Rescissions	(−18,000)	.....	.....	(+18,000)	.....
Chemical demilitarization construction, Defense-Wide	131,000	86,176	104,176	−26,824	+18,000
Base realignment and closure:					
Base realignment and closure account, 1990	252,279	220,689	320,689	+68,410	+100,000
Base realignment and closure account, 2005	2,489,421	8,174,315	8,174,315	+5,684,894	.....
Emergency appropriations	3,136,802	.....	.....	−3,136,802	.....
Total, Base realignment and closure	5,878,502	8,395,004	8,495,004	+2,616,502	+100,000
Total, title I	17,924,046	21,165,182	21,556,664	+3,632,618	+391,482
Appropriations	(13,320,964)	(21,165,182)	(21,559,764)	(+8,238,800)	(+394,582)

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2007 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL FOR FISCAL YEAR 2008—Continued

[In thousands of dollars]

Item	2007 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or −)	
				2007 appropriation	Budget estimate
Emergency appropriations	(4,806,982)			(−4,806,982)	
Rescissions	(−203,900)		(−3,100)	(+200,800)	(−3,100)
TITLE II—DEPARTMENT OF VETERANS AFFAIRS					
Veterans Benefits Administration					
Compensation and pensions	38,007,095	41,236,322	41,236,322	+3,229,227	
Readjustment benefits	3,262,006	3,300,289	3,300,289	+38,283	
Veterans insurance and indemnities	49,850	41,250	41,250	−8,600	
Veterans housing benefit program fund program account (indefinite)	66,234	17,389	17,389	−48,845	
(Limitation on direct loans)	(500)	(500)	(500)		
Credit subsidy	−100,000	−108,000	−108,000	−8,000	
Administrative expenses	154,284	154,562	154,562	+278	
Vocational rehabilitation loans program account	53	71	71	+18	
(Limitation on direct loans)	(4,242)	(3,287)	(3,287)	(−955)	
Administrative expenses	305	311	311	+6	
Native American veteran housing loan program account	584	628	628	+44	
(Limitation on direct loans)	(30,000)			(−30,000)	
Total, Veterans Benefits Administration	41,440,411	44,642,822	44,642,822	+3,202,411	
Veterans Health Administration					
Medical services	25,518,254	27,167,671	28,979,220	+3,460,966	+1,811,549
Emergency appropriations	466,778			−466,778	
Medical administration	3,177,968	3,442,000	3,642,000	+464,032	+200,000
Emergency appropriations	250,000			−250,000	
Medical facilities	3,569,533	3,592,000	4,092,000	+522,467	+500,000
Emergency appropriations	595,000			−595,000	
Medical and prosthetic research	413,980	411,000	500,000	+86,020	+89,000
Emergency appropriations	32,500			−32,500	

Medical care cost recovery collections:					
Offsetting collections	−2,329,000	−2,414,000	−2,414,000	−85,000	.....
Appropriations (indefinite)	2,329,000	2,414,000	2,414,000	+85,000	.....
Total, Veterans Health Administration	34,024,013	34,612,671	37,213,220	+3,189,207	+2,600,549
National Cemetery Administration					
National Cemetery Administration	160,747	166,809	217,709	+56,962	+50,900
Departmental Administration					
General operating expenses	1,481,473	1,471,837	1,612,031	+130,558	+140,194
Emergency appropriations	83,200	.....	.....	−83,200	.....
Information technology systems	1,214,000	1,859,217	1,898,000	+684,000	+38,783
Emergency appropriations	35,100	.....	.....	−35,100	.....
Office of Inspector General	73,066	72,599	88,700	+15,634	+16,101
Construction, major projects	399,000	727,400	727,400	+328,400	.....
Construction, minor projects	198,937	233,396	751,398	+552,461	+518,002
Emergency appropriations	340,485	.....	.....	−340,485	.....
Rescissions (emergency appropriations)	−14,485	.....	.....	+14,485	.....
Grants for construction of State extended care facilities	85,000	85,000	250,000	+165,000	+165,000
Grants for the construction of State veterans cemeteries	32,000	32,000	100,000	+68,000	+68,000
Total, Departmental Administration	3,927,776	4,481,449	5,427,529	+1,499,753	+946,080
Total, title II	79,552,947	83,903,751	87,501,280	+7,948,333	+3,597,529
Appropriations	(77,764,369)	(83,903,751)	(87,501,280)	(+9,736,911)	(+3,597,529)
Emergency appropriations	(1,803,063)	.....	.....	(−1,803,063)	.....
Rescissions (emergency appropriations)	(−14,485)	.....	.....	(+14,485)	.....
(Limitation on direct loans)	(34,742)	(3,787)	(3,787)	(−30,955)	.....
Discretionary	38,267,762	39,416,501	43,014,030	+4,746,268	+3,597,529
Mandatory	41,285,185	44,487,250	44,487,250	+3,202,065	.....
TITLE III—RELATED AGENCIES					
American Battle Monuments Commission					
Salaries and expenses	37,000	42,100	45,600	+8,600	+3,500
Foreign currency fluctuations account	5,000	11,000	11,000	+6,000	.....

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2007 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL FOR FISCAL YEAR 2008—Continued

[In thousands of dollars]

Item	2007 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or −)	
				2007 appropriation	Budget estimate
Total, American Battle Monuments Commission	42,000	53,100	56,600	+14,600	+3,500
U.S. Court of Appeals for Veterans Claims					
Salaries and expenses	20,189	21,217	24,217	+4,028	+3,000
Department of Defense—Civil					
Cemeterial Expenses, Army					
Salaries and expenses	30,000	26,892	31,865	+1,865	+4,973
Armed Forces Retirement Home					
Operation and maintenance	55,991	55,724	55,724	−267	
Capital program	1,236			−1,236	
General fund appropriation		5,900	5,900	+5,900	
Total, Armed Forces Retirement Home	57,227	61,624	61,624	+4,397	
Total, title III	149,416	162,833	174,306	+24,890	+11,473
Appropriations	(149,416)	(162,833)	(174,306)	(+24,890)	(+11,473)
Grand total	97,626,409	105,231,766	109,232,250	+11,605,841	+4,000,484
Appropriations	(91,234,749)	(105,231,766)	(109,235,350)	(+18,000,601)	(+4,003,584)
Emergency appropriations	(6,610,045)			(−6,610,045)	
Rescissions	(−203,900)		(−3,100)	(+200,800)	(−3,100)
Rescissions (emergency appropriations)	(−14,485)			(+14,485)	

○

CHAIRMAN OF THE JOINT CHIEFS OF STAFF

WASHINGTON, D.C. 20318-9999

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, D.C. 20510-6050

Dear Mr. Chairman,

The FY 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to submit a report to the congressional defense committees on the Joint Requirements Oversight Council (JROC) decision following review of the Maritime Prepositioning Program (Future) (MPF(F)). The committee further directed that this report include a detailed vulnerability assessment of MPF(F) for major combat operations. A U.S. Navy report providing this information is enclosed.

The JROC reviewed and approved the Capabilities Development Document for Increment One of MPF(F) in March 2008. Of note, the JROC validated the platform Key Performance Parameters for the Mobile Landing Platform and Auxiliary Dry Cargo/Ammunition Ship (T-AKE). It also delegated approval authority for non-key performance parameter changes to the U.S. Navy. The JROC directed the U.S. Navy to fund two T-AKEs in POM10 and reflect them in the U.S. Navy's long-range shipbuilding strategy.

Your continued support for our men and women in uniform is greatly appreciated.

Very Respectfully,

JAMES E. CARTWRIGHT
General, United States Marine Corps
Acting Chairman
of the Joint Chiefs of Staff

Enclosure

Copy to:
The Honorable John McCain
Ranking Member

CHAIRMAN OF THE JOINT CHIEFS OF STAFF

WASHINGTON, D.C. 20318-9999

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, D.C. 20515-6035

Dear Mr. Chairman,

The FY 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to submit a report to the congressional defense committees on the Joint Requirements Oversight Council (JROC) decision following review of the Maritime Prepositioning Program (Future) (MPF(F)). The committee further directed that this report include a detailed vulnerability assessment of MPF(F) for major combat operations. A U.S. Navy report providing this information is enclosed.

The JROC reviewed and approved the Capabilities Development Document for Increment One of MPF(F) in March 2008. Of note, the JROC validated the platform Key Performance Parameters for the Mobile Landing Platform and Auxiliary Dry Cargo/Ammunition Ship (T-AKE). It also delegated approval authority for non-key performance parameter changes to the U.S. Navy. The JROC directed the U.S. Navy to fund two T-AKEs in POM10 and reflect them in the U.S. Navy's long-range shipbuilding strategy.

Your continued support for our men and women in uniform is greatly appreciated.

Very Respectfully,

JAMES E. CARTWRIGHT
General, United States Marine Corps
Acting Chairman
of the Joint Chiefs of Staff

Enclosure

Copy to:
The Honorable Duncan Hunter
Ranking Member

REPORT TO CONGRESS

MARITIME PREPOSITIONING FORCE (FUTURE)

MPF(F)

PREPARED BY

DIRECTOR, EXPEDITIONARY WARFARE DIVISION

(OPNAV N85)

1000 NAVY PENTAGON

WASHINGTON, DC 20350

MARCH 2008

TABLE OF CONTENTS

1.0 REPORTING REQUIREMENT 2

2.0 MPF(F) PROGRAM UPDATE 2

3.0 MPF(F) JROC FINDINGS 4

4.0 MPF(F) VULNERABILITY ASSESSMENT 4

5.0 CONCLUSION 6

1.0 REPORTING REQUIREMENT

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of Defense to submit to the congressional defense committees within 30 days of the Joint Requirements Oversight Council (JROC) Maritime Prepositioning Program (Future) (MPF(F)) decision, outlining the findings of the JROC. It was further directed that this report include a detailed vulnerability assessment of MPF(F) for Major Combat Operations (MCO).

This report will address the following:
- update MPF(F) program status to include an explanation of the incremental acquisition approach currently being pursued to acquire the full MPF(F) squadron;
- findings of the JROC as contained in the final JROC memorandum, and;
- vulnerability assessment of MPF(F) platforms operating in support of MCO.

2.0 MPF(F) Program Update

As part of the emerging concept of Seabasing, MPF(F) is part of a National Strategic investment designed to provide rapid response in anti-access environments, with the ability to conduct sustained operations in the Joint Operating Area (JOA). The MPF(F) squadron will consist of two new construction MPF(F) LHA(R) variants, one existing LHD, three new construction MPF(F) T-AKEs, three new construction MPF(F) Large Medium Speed Roll-on/Roll-off (RO/RO) (LMSR) variants, three new construction Mobile Landing Platforms (MLPs), and two existing cargo T-AK Sealift Ships.

MPF(F) will constitute a component of our Nation's Global Pre-positioning Materiel Capabilities. The squadron will contribute a brigade's worth of Prepositioned War Reserve Materiel Afloat lift, replacing one of the three existing Maritime Prepositioning Ships Squadrons (MPSRON).

As part of routine operations, MPF(F) ships will participate in exercises and be moved, as needed, in anticipation of contingency operations. Additionally, individual ships will go off station periodically in support of the MPF Maintenance Cycle.

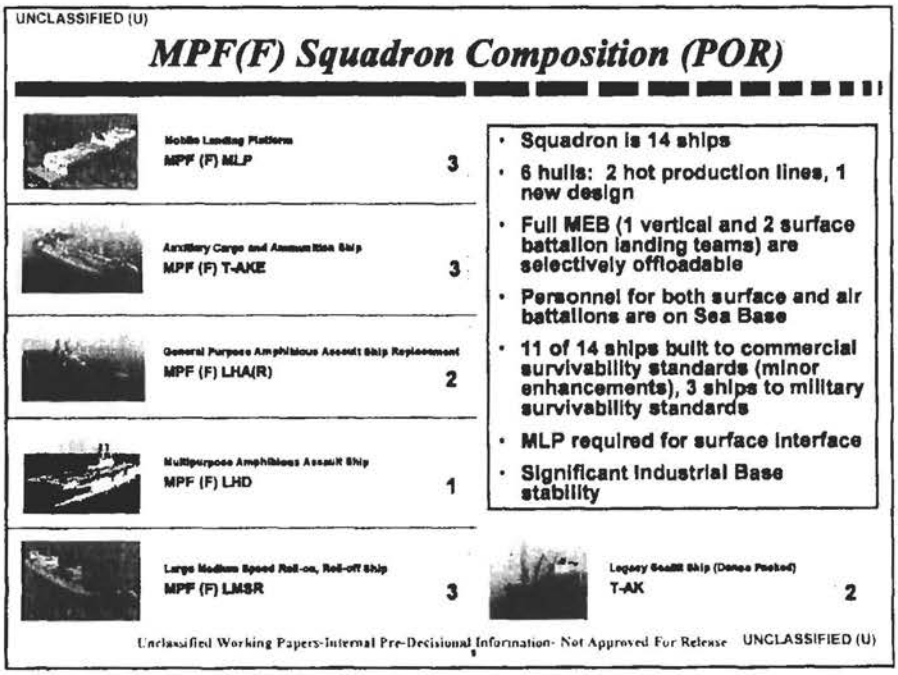
Although the ships will be optimized and loaded for a Major Combat Operations (MCO) scenario, they will also be able to respond to a variety of lesser contingency operations, to include counter insurgency (COIN), Special Operations, Global War On Terror, theater security cooperation operations and Humanitarian Assistance/Disaster Relief (HA/DR).

In January 2007, the MPF(F) program was set to be reviewed by the JROC in order to validate its capabilities and approve its progression along the acquisition timeline. However, consensus did not exist between the Navy and the Marine Corps regarding the role MPF(F) would play in support of MCO. The program was removed from the JROC calendar and the Naval Services were directed to re-evaluate the program, and re-enter the Joint Capabilities Integration and Development System (JCIDS) when the services had attained consensus regarding MPF(F)'s role in support of MCO.

The following months were spent conducting analyses regarding survivability of the platforms and to re-evaluate the squadron options for the MPF(F) program. In addition, inter-service briefings were conducted to build tactical awareness of how the Marine Corps plans to fight MCO and utilize the MPF(F). The outcome of these actions validated previous studies and program composition and achieved a consensus between the Navy and Marine Corps that MPF(F) would provide a reinforcing brigade in support of Assault Echelon amphibious forces in an MCO.

As a result of the above, as well as the lessons learned from the preceding JCIDS staffing, the MPF(F) program will be re-entered into JCIDS in three increments. This decision was initially based on shipbuilding acquisition and budget timeframes that capitalizes on the protracted timeframes inherent in shipbuilding budgets, and allows for the full maturation of all characteristics and technologies of each platform prior to staffing of the Capability Development Document (CDD) for each increment. It was noted that the Navy does not acquire Carrier Strike Groups or Expeditionary Strike Groups as complete packages but as individual platforms with individual capabilities and contributions to the overall mission. The incremental approach provides the opportunity to fully focus on each ship-set of capabilities independently.

The MPF(F) squadron composition, grouped by increments, is shown below along with the primary capabilities each increment provides.



The Increment One Capabilities Development Document (CDD) described the capabilities and concept of employment for an MPF(F) squadron as it develops through the three planned increments. It provided the parameters of the MPF(F) Mobile Landing

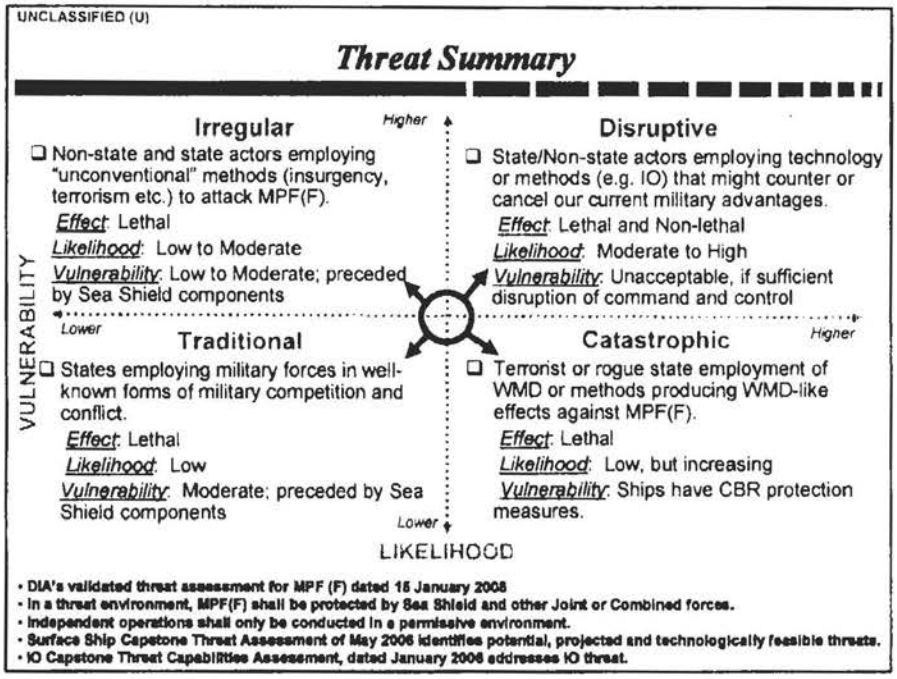
Platforms (MLPs) and the MPF(F) Auxiliary Dry Cargo/Ammunition Ships (T-AKEs) as they contribute to the overall MPF(F) squadron. The squadron's organic aviation capability, provided by the two new construction Amphibious Assault Ships Replacement (LHA(R)s) and one Amphibious Assault Ship Multipurpose (LHD) transferred from the active Fleet at Full Operational Capability (FOC), will be addressed in the Increment Two CDD, which is scheduled to be introduced into JCIDS in June 2008. The MPF(F) LMSR (Modified T-AKR 300 or 310 Class design) variant and the existing Auxiliary Cargo ships (T-AKs) will comprise Increment Three. The Increment Three CDD is scheduled for staffing 2nd quarter Fiscal Year 2009 to support a Fiscal Year 2012 award.

3.0 MPF(F) JROC FINDINGS

MPF(F) Increment One was reviewed and approved via an electronic JROC in March 2008. The results and findings are documented in JROCM 065-08. Of note, the JROC approved the Capabilities Development Document, validated the platform Key Performance Parameters for the Mobile Landing Platform (MLP) and Auxiliary Dry Cargo/Ammunition Ship (T-AKE), delegated approval authority for non-key performance parameter changes to the Navy, and directed the Navy to fund the two unfunded T-AKEs in POM10.

4.0 MPF(F) VULNERABILITY ASSESSMENT

A Capstone System Threat Assessment (ONI-CTA-003-06) was completed in May 2006. The assessment identifies potential, projected and technologically feasible threats to MPF(F) and will be used as the basis for threat delineation. It is anticipated that the primary threats shall be from aircraft, ships, and submarines, coastal defense units armed with anti-ship cruise missiles, theater ballistic anti-ship surface-to-surface missiles, and air-, ship-, and submarine-launched mines. Secondary threats also come from submarine-launched torpedoes; tactical air-to-surface missiles; other ordnance carried by sea and land-based aircraft (fixed and rotary-wing); and chemical, biological and nuclear weapons; and, in the future, directed energy weapons. When operating in the littoral environment, additional threats may be encountered from coastal artillery, multiple rocket launchers, small boats, and atypical sources such as torpedoes from coastal defense sites. A tertiary threat will include preemptive attacks or covert action from special operations forces, combat divers and terrorists. Command, Control and Communications (C3) electronic attack and electronic support systems may support the weapons threats.



An MPF(F) program-sponsored Sea Shield analysis was conducted for an approved Major Combat Operation (MCO) scenario. The scenario used an approved Multi-Service Force Deployment (MSFD) document for 2012 with friendly and threat capabilities extrapolated out to 2024. MPF(F) was included in the Force laydown operating from a Sea Base and delivering a MEB ashore from over the horizon. The analysis involved close coordination with the Navy's Seabasing and Sea Shield pillars, Marine Corps Combat Development Command's (MCCDC) Seabasing Integration Division, Naval Sea Systems Command (NAVSEA), elements of the Joint Staff, and OSD's Program Analysis and Evaluation (PA&E) Branch. While operating in a threat environment, MPF(F) will be protected by other Naval Sea Shield and/or other Joint or Combined forces commensurate with the threat. The analysis showed that an appropriate level of Sea Shield was attained to protect the MPF(F). The classified details of this analysis are contained in Annex N-1 of the MPF(F) Increment One CDD and available upon request. Additionally, on 15 January 2008 the Joint Staff for Intelligence (J-2) and Defense Intelligence Agency (DIA) certified concurrence with the assessed threat as laid out in the MPF(F) CDD's threat section.

Achieving Sea Shield is a prerequisite to establishing the sea base. Accordingly, commercial designs and civilian mariner crewing are considered appropriate for the operating environment.

5.0 CONCLUSION

The MPF(F) squadron will be a key enabler of seabasing. It is a component of the overall global prepositioning posture, contributing to our national maritime expeditionary strategy. Its operational capability when combined with an Expeditionary Strike Group (ESG), Carrier Strike Group (CSG) and/or Amphibious Task Force (ATF) can be employed across the full Range of Military Operations (from supporting Major Combat Operations (MCO) to support of non-combat operations such as Humanitarian Assistance/Disaster Relief (HA/DR)). An MPF(F) squadron, when operating as part of an Expeditionary Strike Force (ESF), will provide significant expeditionary force projection from over-the-horizon, with the ability to sustain forces ashore and contribute to the throughput and sustainment of additional Joint forces. MPF(F) will not be a part of Assault Echelon amphibious shipping. However, MPF(F) with its connectors and sustainment stocks, will provide the ESF with greater operational flexibility, ensure a dramatic increase in speed of response, and facilitate assured access from the sea in anti-access environments. MPF(F) employment will require sufficient escort support to adequately mitigate potential threats and secure the environment for its operations. MPF(F) is capable of independent operations (without other amphibious forces) in low to medium threat environments and reinforcement of forcible entry operations in a high threat environment. An appropriate level of sea shield support will always be required.

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00128
26 Mar 08

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser 00/M08UM00129
26 Mar 08

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00127
26 Mar 08

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

6000
Ser M00/08UM00126
26 Mar 08

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by the FY08 Defense Appropriations Conference Report 110-434, the enclosed report provides the requested information regarding the Navy's efforts to address the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater. Specifically, the report states that despite the lack of NEW antibiotics available for the treatment of the multi drug resistant infections, the Navy uses all of the available antibiotic regimens to treat these infections, and describes their active engagement and participation in DoD Infectious Disease community efforts to address the complex issues associated with the treatment of these life threatening multi drug resistant infections. Congressional funding and authorization, is critical to our long term success in the treatment of these devastating infections.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

Report to Congress

On

MULTI DRUG RESISTANT ORGANISMS

PREPARED BY:
Bureau of Medicine and Surgery
Washington, DC 20376-2401

March 2008

I. Report Requirements

The Conference Committee on Appropriations FY2008 Department of Defense Appropriations report (110-434) directed the Service Surgeons General to report to the congressional defense committees on the antibiotic regimen being used to treat service members with these infections, what new antibiotics are available but currently not being used by the military, what research is being conducted in this area, and what is needed to ensure that the service members receive the necessary treatment to reduce these lifethreatening infections.

II. Background

Treating patients with multidrug resistant organisms is a worldwide issue and many intensive care units in the US, Canada and Europe are facing the same issues. Navy Medicine works closely with our Army and Air Force Infectious Disease colleagues in this area. Since there are currently no new drugs available for these infections, the most important strategy is to try and prevent the infections in the first place and to employ all efforts to minimize their transmission in health care settings. This effort includes the rigorous implementation of the Centers for Disease Control guidelines for prevention of the spread of organisms to other patients as well as research into the types of organisms and their environmental locations in theater.

Navy Medicine has access to the latest drugs and/or treatments for multidrug resistant organisms in the care of military beneficiaries. Current treatment regimens are individualized to the specific organism, disease site, patient responses/requirements to treatment, and appropriate patient isolation. Among a number of antibiotics, carbapenems such as imipenem, quinolone such as ciprofloxacin, cephalosporins such as ceftazadime and aminoglycocides such as amikacin are included in the standard of care in U.S. medical centers. They are utilized extensively and appropriately in the DoD. Additionally, the DoD is on the cutting edge of treatment in the use of colistin, an older drug that generally had not been used for many years but has maintained activity against some of the most resistant *Acinetobacter* organisms causing infections. Colistin is not generally available in most civilian hospitals, but is extensively used in the military treatment facilities caring for most of the war injured who return to the U.S.

III. Assessment of the ongoing and proposed DoD Infectious Disease Community Efforts to address the treatment of the life-threatening increasingly resistant infections found in service members returning from theater.

The DoD Infectious Disease community has been approaching war related infections in a TriService fashion. The Armed Forces Infectious Diseases Society has focused on war related infections, as well as methicillin resistant *Staph aureus* (MRSA), at their meetings twice annually in order to respond to these threats in a consistent manner and to determine research priorities in the DoD. Military infectious diseases protocols are addressing multiple aspects of these infections including the molecular characterization of resistant bacterial isolates to determine their source, optimizing drug levels in infected

burn patients, decreasing colonization and skin infections with MRSA and even administration of an MRSA vaccine.

During this calendar year, the Infectious Diseases Clinical Research Program (IDCRP) at the Uniformed Science University, is starting a multicenter Trauma Infectious Disease Outcomes Study (TIDOS) that will follow war injured patients from Landstuhl through the National Navy Medical Center, Walter Reed Army Medical Center, and Brooke Army Medical Center. The IDCRP will collect bacterial isolates from the war injured and following the patients' clinical course for five years after their injury. The goal is to determine which factors (antibiotics used, procedures performed, site of care, etc.) are associated with better or worse outcomes. The results of this study will provide physicians objective data to improve patient care and minimize risk of infections thereby optimizing patient outcomes (life, limb salvage, increased functionality, decreased pain, etc). This project is being funded through the National Institutes of Health (NIH) and the IDCRP and is a multiyear study.

The Navy participated in a multinational study that is ongoing and under statistical analysis at the University of Leiden Netherlands. The study is looking for clonality compared to European isolates. Data is expected late this year.

The Navy participated in study with the James Haley VA hospital in Tampa. Of the 91 patients enrolled, 45 had Acinetobacter infections, and approximately 70% were multidrug resistant Acinetobacter. The length of hospital care from time of injury to discharge from rehabilitation was, longer in patients with Acinetobacter infections.

The Navy is participating in a DoD Multicenter Cohort Study evaluating Infection-Associated Clinical Outcomes in Hospitalized Medical Evacuees following Traumatic Injury. The study is planned for five years. Enrollment has not yet begun.

IV. Conclusion

The research efforts of the DoD Infectious Disease community and the Navy to address these serious life threatening infections and the various parameters that influence resistance is a complex but critical effort that will provide physicians objective data to improve patient care and minimize risk of infections thereby optimizing patient outcomes (life, limb salvage, increased functionality, decreased pain, etc). Congressional support of these efforts is critical to our long term success in the treatment of these devastating infections. The results of our concerted efforts have the potential to benefit both our military medical system as well as the world wide health care systems.

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

Ser M00/0001.B
5000
February 28, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

As you know, House Conference Report 110-434 directed the Service Surgeons General to provide information on the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater.

Treating patients with multidrug resistant organisms is a worldwide concern and many intensive care units in the U.S., Canada, and Europe are facing the same issues. Navy Medicine works closely with our Army and Air Force Infectious Disease colleagues in this area. Since there are currently no new drugs available for these infections, the most important strategy is to try and prevent the infections in the first place and to employ all efforts to minimize their transmission in health care settings. This effort includes the rigorous implementation of the Centers for Disease Control guidelines for prevention of the spread of organisms to other patients as well as research into the types of organisms and their environmental locations in theater.

Navy Medicine has access to the latest drugs and/or treatments for multidrug resistant organisms in the care of military beneficiaries.
Current treatment regimens are individualized to the specific organism, disease site and patient responses/requirements to treatment. Antibiotic choices among others include: carbapenem drugs such as imipenum, cephalosporin drugs such as ciprofloxacin and aminoglycocide drugs such as amikacin. Also, the Department of Defense is on the cutting edge of treatment in the use of the drug colistin for resistant organisms. This drug is not generally available in many civilian hospitals.

Looking forward, the Infectious Diseases Clinical Research Program (IDCRP) at the Uniformed Services University of the Health Sciences (USUHS), is starting a multicenter Trauma Infectious Disease Outcomes Study (TIDOS) that will follow war injured patients from the Army Medical Center in Landstuhl thru the National Naval Medical Center, Bethesda, MD; Walter Reed Army Medical Center, Washington, DC; and Brooke Army Medical Center, San Antonio, TX collecting isolates of their bacteria and following patients for five years following injury. The goal is to determine which factors (antibiotic used, procedures, etc.) are associated with better or worse outcomes and to try to identify areas of improvement in patient care that will lead to

improved outcomes (life, limb salvage, increased functionality, decreased pain, etc). This project is being funded through the National Institutes of Health (NIH) and the IDCRP and is a five year study.

The Bureau of Medicine and Surgery is collecting additional information and will be able to more fully address the committee's questions and concerns addressed in the conference report 110-434. We will provide a response back to you within 45 days.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

Ser M00/0001.A
5000
February 28, 2008

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-0001

Dear Mr. Chairman:

As you know, House Conference Report 110-434 directed the Service Surgeons General to provide information on the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater.

Treating patients with multidrug resistant organisms is a worldwide concern and many intensive care units in the U.S., Canada, and Europe are facing the same issues. Navy Medicine works closely with our Army and Air Force Infectious Disease colleagues in this area. Since there are currently no new drugs available for these infections, the most important strategy is to try and prevent the infections in the first place and to employ all efforts to minimize their transmission in health care settings. This effort includes the rigorous implementation of the Centers for Disease Control guidelines for prevention of the spread of organisms to other patients as well as research into the types of organisms and their environmental locations in theater.

Navy Medicine has access to the latest drugs and/or treatments for multidrug resistant organisms in the care of military beneficiaries. Current treatment regimens are individualized to the specific organism, disease site and patient responses/requirements to treatment. Antibiotic choices among others include: carbapenem drugs such as imipenum, cephalosporin drugs such as ciprofloxacin and aminoglycocide drugs such as amikacin. Also, the Department of Defense is on the cutting edge of treatment in the use of the drug colistin for resistant organisms. This drug is not generally available in many civilian hospitals.

Looking forward, the Infectious Diseases Clinical Research Program (IDCRP) at the Uniformed Services University of the Health Sciences (USUHS), is starting a multicenter Trauma Infectious Disease Outcomes Study (TIDOS) that will follow war injured patients from the Army Medical Center in Landstuhl thru the National Naval Medical Center, Bethesda, MD; Walter Reed Army Medical Center, Washington, DC; and Brooke Army Medical Center, San Antonio, TX collecting isolates of their bacteria and following patients for five years following injury. The goal is to determine which factors (antibiotic used, procedures, etc.) are associated with better or worse outcomes and to try to identify areas of improvement in patient care that will lead to improved outcomes (life, limb salvage, increased functionality, decreased pain, etc). This

project is being funded through the National Institutes of Health (NIH) and the IDCRP and is a five year study.

The Bureau of Medicine and Surgery is collecting additional information and will be able to more fully address the committee's questions and concerns addressed in the conference report 110-434. We will provide a response back to you within 45 days.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

Ser M00/0001
5000
February 28, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As you know, House Conference Report 110-434 directed the Service Surgeons General to provide information on the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater.

Treating patients with multidrug resistant organisms is a worldwide concern and many intensive care units in the U.S., Canada, and Europe are facing the same issues. Navy Medicine works closely with our Army and Air Force Infectious Disease colleagues in this area. Since there are currently no new drugs available for these infections, the most important strategy is to try and prevent the infections in the first place and to employ all efforts to minimize their transmission in health care settings. This effort includes the rigorous implementation of the Centers for Disease Control guidelines for prevention of the spread of organisms to other patients as well as research into the types of organisms and their environmental locations in theater.

Navy Medicine has access to the latest drugs and/or treatments for multidrug resistant organisms in the care of military beneficiaries. Current treatment regimens are individualized to the specific organism, disease site and patient responses/requirements to treatment. Antibiotic choices among others include: carbapenem drugs such as imipenum, cephalosporin drugs such as ciprofloxacin and aminoglycocide drugs such as amikacin. Also, the Department of Defense is on the cutting edge of treatment in the use of the drug colistin for resistant organisms. This drug is not generally available in many civilian hospitals.

Looking forward, the Infectious Diseases Clinical Research Program (IDCRP) at the Uniformed Services University of the Health Sciences (USUHS), is starting a multicenter Trauma Infectious Disease Outcomes Study (TIDOS) that will follow war injured patients from the Army Medical Center in Landstuhl through the National Naval Medical Center, Bethesda, MD; Walter Reed Army Medical Center, Washington, DC; and Brooke Army Medical Center, San Antonio, TX collecting isolates of their bacteria and following patients for five years following injury. The goal is to determine which factors (antibiotic used, procedures, etc.) are associated with better or worse outcomes and to try to identify areas of improvement in patient care that will lead to improved

outcomes (life, limb salvage, increased functionality, decreased pain, etc). This project is being funded thru the National Institutes of Health (NIH) and the IDCRP and is a five year study.

The Bureau of Medicine and Surgery is collecting additional information and will be able to more fully address the committee's questions and concerns addressed in the conference report 110-434. We will provide a response back to you within 45 days.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable Ted Stevens
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO

Ser M00/0001.C
5000
February 28, 2008

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-0001

Dear Mr. Chairman:

As you know, House Conference Report 110-434 directed the Service Surgeons General to provide information on the life-threatening infections that are increasingly resistant to currently used antibiotics found in service members returning from theater.

Treating patients with multidrug resistant organisms is a worldwide concern and many intensive care units in the U.S., Canada, and Europe are facing the same issues. Navy Medicine works closely with our Army and Air Force Infectious Disease colleagues in this area. Since there are currently no new drugs available for these infections, the most important strategy is to try and prevent the infections in the first place and to employ all efforts to minimize their transmission in health care settings. This effort includes the rigorous implementation of the Centers for Disease Control guidelines for prevention of the spread of organisms to other patients as well as research into the types of organisms and their environmental locations in theater.

Navy Medicine has access to the latest drugs and/or treatments for multidrug resistant organisms in the care of military beneficiaries.
Current treatment regimens are individualized to the specific organism, disease site and patient responses/requirements to treatment. Antibiotic choices among others include: carbapenem drugs such as imipenum, cephalosporin drugs such as ciprofloxacin and aminoglycocide drugs such as amikacin. Also, the Department of Defense is on the cutting edge of treatment in the use of the drug colistin for resistant organisms. This drug is not generally available in many civilian hospitals.

Looking forward, the Infectious Diseases Clinical Research Program (IDCRP) at the Uniformed Services University of the Health Sciences (USUHS), is starting a multicenter Trauma Infectious Disease Outcomes Study (TIDOS) that will follow war injured patients from the Army Medical Center in Landstuhl thru the National Naval Medical Center, Bethesda, MD; Walter Reed Army Medical Center, Washington, DC; and Brooke Army Medical Center, San Antonio, TX collecting isolates of their bacteria and following patients for five years following injury. The goal is to determine which factors (antibiotic used, procedures, etc.) are associated with better or worse outcomes and to try to identify areas of improvement in patient care that will lead to improved outcomes (life, limb salvage, increased functionality, decreased pain, etc). This

project is being funded through the National Institutes of Health (NIH) and the IDCRP and is a five year study.

The Bureau of Medicine and Surgery is collecting additional information and will be able to more fully address the committee's questions and concerns addressed in the conference report 110-434. We will provide a response back to you within 45 days.

Sincerely,

Adam Robinson

A. M. ROBINSON, JR.
Vice Admiral, Medical Corps
United States Navy

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

2009

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

IN REPLY REFER TO

ACTION MEMO

November 19, 2008

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

SUBJECT: Helicopter Force Structure - Vertical Heavy Lift

- Mr. Secretary, request you sign TAB A and forward with TAB B to the Chairmen of the Defense Committees.

- Submission of this information is directed by the Fiscal Year 2009 National Defense Authorization Act Conference Report 110-652. The due date for this report is no later than 30 November 2008.

- TAB B is the approved USFFC Vertical Heavy Lift Concept of Operations (CONOP). The CONOP examines how the Fleet may deliver Heavy Lift (HL) capabilities within the Future Years Defense Plan (FYDP) to 2014, and discusses possible HL alternatives as the MH-53E is phased out of service. Since the sundown of the MH-53 occurs in 2018, some mitigation gaps discussed in the CONOP will be outside the FYDP and therefore not a program of record.

RECOMMENDATION: SECNAV sign TAB A and forward with TAB B.

COORDINATION: TAB C

ATTACHMENTS:
As stated

Prepared By: CDR Mark J. Knollmueller, DNS-6B, (703) 695-5756

10DEC08
AASN
RELEASE

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

December 1, 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for FY09 requested that the Secretary of the Navy include in the Navy's vertical lift requirements study an assessment of the potential benefits of a new type/model/series helicopter that is larger than the H-60.

As directed by the Chief of Naval Operations, Commander, United States Fleet Forces Command completed the Vertical Heavy Lift (VHL) Concept of Operations (CONOPS) on August 19, 2008, examining how the Fleet will deliver VHL capabilities within the Future Years Defense Plan with mitigating strategies. The enclosed CONOPS articulates the projected operational environment and is consistent with the Navy Helicopter Master Plan that consolidates helicopter types from six to a single H-60 series medium lift aircraft. It also discusses possible heavy lift alternatives as the MH-53E is phased out of service. The CONOPS does not specifically discuss the analysis and potential benefits of a new helicopter that is larger than the H-60.

In response to the committee's request, the Department of the Navy is currently assessing the potential benefits of a new type/model/series helicopter to support the various mission areas and other considerations as identified in the NDAA by the House Armed Services Committee. We anticipate the study will be completed by mid FY09, at which time it will be forwarded to Congress. The Department will continue a balanced approach in conjunction with other programs and reassess all VHL mitigation strategies to ensure total lift requirements are met.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

December 1, 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for FY09 requested that the Secretary of the Navy include in the Navy's vertical lift requirements study an assessment of the potential benefits of a new type/model/series helicopter that is larger than the H-60.

As directed by the Chief of Naval Operations, Commander, United States Fleet Forces Command completed the Vertical Heavy Lift (VHL) Concept of Operations (CONOPS) on August 19, 2008, examining how the Fleet will deliver VHL capabilities within the Future Years Defense Plan with mitigating strategies. The enclosed CONOPS articulates the projected operational environment and is consistent with the Navy Helicopter Master Plan that consolidates helicopter types from six to a single H-60 series medium lift aircraft. It also discusses possible heavy lift alternatives as the MH-53E is phased out of service. The CONOPS does not specifically discuss the analysis and potential benefits of a new helicopter that is larger than the H-60.

In response to the committee's request, the Department of the Navy is currently assessing the potential benefits of a new type/model/series helicopter to support the various mission areas and other considerations as identified in the NDAA by your committee. We anticipate the study will be completed by mid FY09, at which time it will be forwarded to Congress. The Department will continue a balanced approach in conjunction with other programs and reassess all VHL mitigation strategies to ensure total lift requirements are met.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

December 1, 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for FY09 requested that the Secretary of the Navy include in the Navy's vertical lift requirements study an assessment of the potential benefits of a new type/model/series helicopter that is larger than the H-60.

As directed by the Chief of Naval Operations, Commander, United States Fleet Forces Command completed the Vertical Heavy Lift (VHL) Concept of Operations (CONOPS) on August 19, 2008, examining how the Fleet will deliver VHL capabilities within the Future Years Defense Plan with mitigating strategies. The enclosed CONOPS articulates the projected operational environment and is consistent with the Navy Helicopter Master Plan that consolidates helicopter types from six to a single H-60 series medium lift aircraft. It also discusses possible heavy lift alternatives as the MH-53E is phased out of service. The CONOPS does not specifically discuss the analysis and potential benefits of a new helicopter that is larger than the H-60.

In response to the committee's request, the Department of the Navy is currently assessing the potential benefits of a new type/model/series helicopter to support the various mission areas and other considerations as identified in the NDAA by the House Armed Services Committee. We anticipate the study will be completed by mid FY09, at which time it will be forwarded to Congress. The Department will continue a balanced approach in conjunction with other programs and reassess all VHL mitigation strategies to ensure total lift requirements are met.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

December 1, 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for FY09 requested that the Secretary of the Navy include in the Navy's vertical lift requirements study an assessment of the potential benefits of a new type/model/series helicopter that is larger than the H-60.

As directed by the Chief of Naval Operations, Commander, United States Fleet Forces Command completed the Vertical Heavy Lift (VHL) Concept of Operations (CONOPS) on August 19, 2008, examining how the Fleet will deliver VHL capabilities within the Future Years Defense Plan with mitigating strategies. The enclosed CONOPS articulates the projected operational environment and is consistent with the Navy Helicopter Master Plan that consolidates helicopter types from six to a single H-60 series medium lift aircraft. It also discusses possible heavy lift alternatives as the MH-53E is phased out of service. The CONOPS does not specifically discuss the analysis and potential benefits of a new helicopter that is larger than the H-60.

In response to the committee's request, the Department of the Navy is currently assessing the potential benefits of a new type/model/series helicopter to support the various mission areas and other considerations as identified in the NDAA by the House Armed Services Committee. We anticipate the study will be completed by mid FY09, at which time it will be forwarded to Congress. The Department will continue a balanced approach in conjunction with other programs and reassess all VHL mitigation strategies to ensure total lift requirements are met.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

COORDINATION PAGE

Point of Contact/Title	Phone	Date
CDR Mark Brunner / FMBE	(703) 693-1432	6 NOV 08
CDR Gary Sharp / SAL	(703) 697-6935	6 NOV 08
RADM Kenneth Deutsch / USFFC N8	(757) 836-3540	7 NOV 08
RADM Michael Miller / CLA	(703) 697-7146	7 NOV 08
RDML Kenneth E. Floyd / N88	(703) 695-9681	7 NOV 08
CAPT Dave Fisher / N882C	(703) 695-1730	7 NOV 08
VADM John Harvey / DNS	(703) 692-9043	17 NOV 08
ADM Gary Roughead / CNO	(703) 695-5664	19 NOV 08

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 1 2009

The Honorable Robert C. Byrd
Chairman, Committee on
Appropriations
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Skelton, Johnson, Inouye, Murtha, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 1 : 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
Committee on Appropriations
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Skelton, Johnson, Byrd, Murtha, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 1 [illegible]

The Honorable Tim Johnson
Chairman, Subcommittee on
Military Construction, Veterans
Affairs and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Skelton, Byrd, Inouye, Murtha, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JUL 1 4 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Skelton, Johnson, Inouye, Murtha, Byrd, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Byrd, Skelton, Johnson, Inouye, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable David R. Obey
Chairman, Committee on
Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Byrd, Skelton, Johnson, Inouye, Murtha, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

JAN 1 1 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Byrd, Johnson, Inouye, Murtha, Levin, and Edwards.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Duncan Hunter
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on
Military Construction, Veterans
Affairs and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to the Memorandum for Secretaries of the Military Departments, Fisher House and Fisher Suite Reporting, the Department of the Navy submits the "Navy Fisher House Annual Report, Fiscal Year 2008." I am responding on behalf of the Secretary of the Navy.

The Fisher House Central Fund started Fiscal Year 2008 with $6.3 million. In Fiscal Year 2008 Navy Fisher Houses earned $978 thousand and expensed $478 thousand. The budget for Fiscal Year 2009 plans for $836 thousand in income and $1.3 million in expenses, including $697 thousand in capital expenses.

The Department of the Navy appreciates the Committee's interest in Navy Fisher House Program, a vital tool for the care of wounded service members and their families. As always, if I can be of further assistance, please let me know. A similar response has been sent to Chairmen Obey, Byrd, Skelton, Johnson, Inouye, Murtha, and Levin.

Sincerely,

Anita K. Blair
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosures:
As stated

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

DEPARTMENT OF THE NAVY FISHER HOUSE ANNUAL REPORT

Reporting Period: Fiscal Year 2008

PROGRAM OVERVIEW

Commander, Navy Installations Command serves as the Navy Program Manager to execute the Fisher House mission to provide temporary, convenient, and affordable lodging for family members of patients receiving treatment in military Medical Treatment Facilities. The Navy operates two Fisher Houses at National Naval Medical Center, Bethesda, Maryland, two at Naval Medical Center San Diego, California, and one at Naval Medical Center Portsmouth, Virginia. Non-Appropriated Fund employees, assisted by a small cadre of volunteers, staff Navy Fisher Houses. The Navy Fisher Houses averaged a 90 percent occupancy rate during Fiscal Year 2008.

PROGRAM AUTHORITY

Section 906 of the National Defense Authorization Act for Fiscal Year 1999 established the Fisher House Program as a Non-Appropriated Fund Instrumentality and authorized the Secretaries of the Departments to establish a corpus using appropriated funds. The Department of the Navy provided five million dollars to the corpus. Section 914 of the National Defense Authorization Act for Fiscal Year 2001 amended Section 2493 of Title 10, U.S. Code, to allow the Secretaries of the Departments to support Fisher Houses with appropriated funds at the same level provided to Morale, Welfare and Recreation Category B Basic Community Support Activities.

FISCAL YEAR 2008 FINANCIAL RESULTS OF OPERATIONS

In Fiscal Year 2008 Fisher House Non-Appropriated Fund revenues equaled $978,300. Of the total revenue in Fiscal Year 2008, $166,300 was generated from guest room fees. As in Fiscal Year 2007, the Fisher House Foundation funded the $10 per night guest room fee. Fiscal Year 2008 expenses equaled $478,110. The Navy Fisher House Central Fund ended FY 2008 with a balance of $6.8 million.

Non-Appropriated Fund revenue paid staff salaries and benefits, facilitated short term improvements and will support the Fiscal Year 2009 modernization plans for Bethesda and for San Diego Fisher House I. Appropriated funds in the amount of $151,000 were provided to support utilities and maintenance.

FY 2008 Navy Fisher House Non-Appropriated Funds

Revenue	
Interest Income	$308,300
Gifts/Combined Federal Campaign	$503,700
Guest Room Fees	$166,300
Total Revenue	*$978,300*
Expenses	
Salaries and Benefits	$264,000
Supplies	$51,100
Other Operating Expenses	$163,000
Total Operating Expenses	*$478,100*
Net Profit	***$500,200***
FY 2008 Appropriated Fund Base Operations Support	$151,000

FISCAL YEAR 2008 PROGRAM HIGHLIGHTS

- Navy Fisher Houses served a total of 612 families in Fiscal Year 2008, including 200 families of service members wounded while serving in support of Operation Iraqi Freedom and Operation Enduring Freedom.

Families of OIF/OEF	FY-07	FY-08
Bethesda	75	85
San Diego	110	107
Portsmouth	9	8
Total	194	200

Room Nights of OIF/OEF	FY-07	FY-08
Bethesda	1,747	2,550
San Diego	1,298	1,819
Portsmouth	113	80
Total	3,158	4,449

- The San Diego Fisher House II opened on 3 October 2008. Construction of the 11-room House began in September 2007.
- The modernization of the Portsmouth Fisher House commenced in September 2008; completion is scheduled for 31 January 2009. The modernization includes new flooring and tiles, lighting, furnishings and interior painting

and updates the kitchen and bathrooms to meet the Americans with Disability Act standards.

- The Naval Audit Service completed three concurrent audits of the Navy's Fisher House program as requested by the Assistant Secretary of the Navy (Manpower and Reserve Affairs). Audit results noted that the integrity of the corpus is intact, however, compliance with the Americans with Disabilities Act and Personally Identifiable Information controls needs improvement, management controls need strengthening, and governance processes can be improved. Corrective actions are scheduled for completion in May 2009.
- Marine Corps Base Camp Lejeune broke ground for a 12-room Fisher House.

FISCAL YEAR 2009 OUTLOOK

The Navy projects a four percent interest rate for the Non-Appropriated Fund Navy Fisher House Central Fund for Fiscal Year 2009 with estimated earnings of $310,000. Cash donations are forecasted to be $414,800, absent large donations. The Fisher House Foundation will continue paying guest room fees on behalf of family members staying at Navy Fisher Houses. The Fiscal Year 2009 Non-Appropriated Fund budget projects total revenue of $836,200, operating expenses of $618,478, and capital expenses of $697,000 resulting in an End of Fiscal Year 2009 cash balance of $6.3 million.

Navy Fisher House Non-Appropriated Fund Cash Flow	**FY 2007**	**FY 2008**	**Plan FY 2009**
Beginning Fiscal Year Balance	$ 5,588,089	$ 6,276,861	$ 6,777,061
Gifts/Combined Federal Campaign	$ 668,649	$ 503,700	$ 414,800
Interest Accrual	$ 278,212	$ 308,300	$ 310,000
Guest Room Revenue	$ 181,023	$ 166,300	$ 111,400
Total Central Fund Cash	***$ 6,715,973***	***$ 7,255,161***	***$ 7,613,261***
Labor	$ 270,821	$ 264,000	$ 390,240
Other Operating Expenses	$ 168,291	$ 214,100	$ 228,238
Total Operating Expenses	*$ 439,112*	*$ 478,100*	*$ 618,478*
Capital Expenses	*$ -*	*$ -*	*$ 697,000*
Total Expenses	***$ 439,112***	***$ 478,100***	***$ 1,315,478***
End of Fiscal Year Central Fund	**$ 6,276,861**	**$ 6,777,061**	**$ 6,297,783**

Capital expenses reflect:

- Modernization of Bethesda Fisher House I from June to August 2009 and Bethesda Fisher House II from August to November 2009 to include new flooring and tiles, lighting, furnishings and interior painting and updates to the

kitchen and bathrooms to meet the Americans with Disability Act standards.

- Restoration of Portsmouth in Spring 2009 to include interior painting and furnishings.
- San Diego Fisher House II Life Safety Issues and second floor egress.

In Fiscal Year 2009 $166,127 of Appropriated Funds has been budgeted for Fisher House utilities and maintenance.

OTHER

The Fisher House Foundation is considering construction of two 20-room Fisher Houses at National Naval Medical Center Bethesda, Maryland. As a result of the Base Realignment and Closure Commission decision to close Walter Reed Army Medical Center by September 2011, it is anticipated that the Navy will assume responsibility for one additional Fisher House currently operated by Walter Reed.

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

IN REPLY REFER TO

ACTION MEMO

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

SUBJECT: Aircraft Carrier Force Structure Report to Congress

- Mr. Secretary, request you sign TAB A and forward with TAB B to the Chairmen of the Defense Committees.

- Submission of this information is directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652. The due date for this report is no later than 16 January 2009.

- TAB B details the cost and potential schedule implications of either retaining USS KITTY HAWK (CV 63) or returning JOHN F KENNEDY (CV 67) to service during the period between the scheduled retirement of USS ENTERPRISE (CVN 65) and the commissioning of USS GERALD R FORD (CVN 78). The report includes characterization of the current material condition of CV 63 and CV 67. It details the technical, manpower, industrial base, cost, and operational availability risks associated with the major actions that would be required to return one of these carriers to active service by November 2012. The manpower risk, especially in the industrial base is particularly acute for these scenarios. The report also includes an addendum that identifies the number and location of drydocks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV 63 or CV 67.

- This report completes the due diligence to provide Congressional leaders our evaluation of all options to maintain 11 operational carriers through the commissioning of CVN 78.

RECOMMENDATION: Sign TAB A and forward with TAB B.

COORDINATION: TAB C

ATTACHMENTS:
As stated

Prepared By: CAPT Chip Cotton, N430, (703) 604-9967

13 JAN 09

AASN
RELEASE
1/6/09

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

As directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652, the enclosed report details the cost and potential schedule implications of either retaining USS KITTY HAWK (CV 63) or returning JOHN F KENNEDY (CV 67) to service during the period of scheduled retirement of USS ENTERPRISE (CVN 65) and the commissioning of USS GERALD R FORD (CVN 78).

The report includes characterization of the current material condition of CV 63 and CV 67. It details the technical, manpower, industrial base, cost, and operational availability risks associated with given scenarios designed to capture major actions necessary to return one of these carriers to active service by November 2012. The manpower risk, especially in the industrial base is particularly acute for these scenarios. The report also includes an addendum that identifies the number and location of drydocks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV 63 or CV 67.

Navy remains committed to a fleet of at least 11 operational aircraft carriers over the long term. However, the challenges outlined in this report and the previously detailed challenges associated with retaining CVN 65 identified and acknowledged in Committee Report 110-652 reaffirm our desired position: to operate 10 carriers during this period with a fully optimized Fleet Response Plan schedule.

Navy leadership looks forward to working with you on this critical legislative proposal. A copy of the report is also being to Chairmen Levin, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

As directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652, the enclosed report details the cost and potential schedule implications of either retaining USS KITTY HAWK (CV 63) or returning JOHN F KENNEDY (CV 67) to service during the period of scheduled retirement of USS ENTERPRISE (CVN 65) and the commissioning of USS GERALD R FORD (CVN 78).

The report includes characterization of the current material condition of CV 63 and CV 67. It details the technical, manpower, industrial base, cost, and operational availability risks associated with given scenarios designed to capture major actions necessary to return one of these carriers to active service by November 2012. The manpower risk, especially in the industrial base is particularly acute for these scenarios. The report also includes an addendum that identifies the number and location of drydocks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV 63 or CV 67.

Navy remains committed to a fleet of at least 11 operational aircraft carriers over the long term. However, the challenges outlined in this report and the previously detailed challenges associated with retaining CVN 65 identified and acknowledged in Committee Report 110-652 reaffirm our desired position: to operate 10 carriers during this period with a fully optimized Fleet Response Plan schedule.

Navy leadership looks forward to working with you on this critical legislative proposal. A copy of the report is also being to Chairmen Skelton, Inouye, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652, the enclosed report details the cost and potential schedule implications of either retaining USS KITTY HAWK (CV 63) or returning JOHN F KENNEDY (CV 67) to service during the period of scheduled retirement of USS ENTERPRISE (CVN 65) and the commissioning of USS GERALD R FORD (CVN 78).

The report includes characterization of the current material condition of CV 63 and CV 67. It details the technical, manpower, industrial base, cost, and operational availability risks associated with given scenarios designed to capture major actions necessary to return one of these carriers to active service by November 2012. The manpower risk, especially in the industrial base is particularly acute for these scenarios. The report also includes an addendum that identifies the number and location of drydocks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV 63 or CV 67.

Navy remains committed to a fleet of at least 11 operational aircraft carriers over the long term. However, the challenges outlined in this report and the previously detailed challenges associated with retaining CVN 65 identified and acknowledged in Committee Report 110-652 reaffirm our desired position: to operate 10 carriers during this period with a fully optimized Fleet Response Plan schedule.

Navy leadership looks forward to working with you on this critical legislative proposal. A copy of the report is also being to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652, the enclosed report details the cost and potential schedule implications of either retaining USS KITTY HAWK (CV 63) or returning JOHN F KENNEDY (CV 67) to service during the period of scheduled retirement of USS ENTERPRISE (CVN 65) and the commissioning of USS GERALD R FORD (CVN 78).

The report includes characterization of the current material condition of CV 63 and CV 67. It details the technical, manpower, industrial base, cost, and operational availability risks associated with given scenarios designed to capture major actions necessary to return one of these carriers to active service by November 2012. The manpower risk, especially in the industrial base is particularly acute for these scenarios. The report also includes an addendum that identifies the number and location of drydocks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV 63 or CV 67.

Navy remains committed to a fleet of at least 11 operational aircraft carriers over the long term. However, the challenges outlined in this report and the previously detailed challenges associated with retaining CVN 65 identified and acknowledged in Committee Report 110-652 reaffirm our desired position: to operate 10 carriers during this period with a fully optimized Fleet Response Plan schedule.

Navy leadership looks forward to working with you on this critical legislative proposal. A copy of the report is also being to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

COORDINATION PAGE

Office/Dept	Point of Contact/Title	Phone	Date
ASN(RD&A)	VADM David Architzel Deputy	(703) 695-6315	Dec 08
OPNAV (N4)	VADM Michael Loose Deputy	(703) 693-7651	Dec 08
NAVSEA	VADM Kevin McCoy Commander	(202) 781-0100	Dec 08
NAVSEA (04)	RADM Mark Hugel Assist Commander	(202) 781-3890	Dec 08
NAVSEA (05)	RDML Thomas Eccles Chief Engineer	(202) 781-1710	Dec 08
NAVSEA (08)	Mr. Elmer Naples Assist Deputy	(202) 781-6042	Dec 08
OLA	RADM Michael Miller Chief, Legislative Affair	(703) 697-7146	Dec 08
OPNAV (N12)	RDML Cynthia Covell Director, Total Force Requirer	(703) 695-6377	Dec 08
OPNAV (N8F)	RADM Allen Myers Director, Requirements Division	(703) 614-2162	Dec 08
OPNAV (N88)	RDML Kenneth Floyd Director, Air Warfare	(703) 695-9681	Dec 08
PEO CARRIERS	RDML Michael McMahon Program Executive Officer	(202) 781-2949	Dec 08
PMS 312	CAPT Frank Simei Program Manager	(202) 781-3208	Dec 08
PMS 333	Mr. Glen Clark Program Executive Officer	(202)781-0498	Dec 08
FMBE	CDR Mark Brunner	(703) 693-1432	Jan 09
FMBE	CAPT Tom McGovern	(703) 692-6735	Jan 09
SAL	CDR Gary Sharp	(703) 697-6935	Jan 09

REPORT TO CONGRESS

COST AND SCHEDULE IMPLICATIONS OF REACTIVATING USS KITTY HAWK (CV 63) OR JOHN F. KENNEDY (CV 67)

Prepared by
OPNAV N4
January 2009

I. Introduction

Pursuant to the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, the Secretary of the Navy shall report to the Congressional defense committees on the cost and potential schedule implication of either returning JOHN F. KENNEDY (CV 67) or USS KITTY HAWK (CV 63) to service during the period between the scheduled inactivation of USS ENTERPRISE (CVN 65) and the commissioning of USS GERALD R FORD (CVN 78). Specifically, House Report 109-702 stated:

> *The committee notes that section 5062 of title 10, United States Code requires the Department of Defense to maintain 11 active aircraft carriers. The committee is also aware that the Department of Defense requested legislative relief to waive this statutory requirement for the period between the proposed decommissioning of the USS Enterprise (CVN-65) and the initial operating capability of the USS Ford (CVN-78). The committee is concerned with the position of the Department of Defense, especially since the Department recently reached a compromise with the Congress to reduce the statutory requirement from 12 aircraft carriers to 11 in section 1011 of the John Warner National Defense Authorization Act for Fiscal Year 2007 (Public Law 109-364). Moreover, the committee notes that the period between the proposed decommissioning of CVN-65 and the initial operating capability of CVN-78 will be a minimum of 33 months and may be more than 4 years, depending on the construction progress of the first-of-class CVN-78 and its post-commissioning testing and evaluation period.*
>
> *Consequently, the committee rejects the request of the Department to allow a waiver to section 5062 of title 10, United States Code for the purpose of retiring CVN-65 in fiscal year 2013. However, the committee understands that there are significant schedule and cost implications associated with a depot maintenance period which would be necessary to maintain CVN-65 in active service after fiscal year 2013 and that, even with an overhaul, the CVN-65 has limited nuclear fuel life.*
>
> *Therefore, the committee directs the Secretary of the Navy to submit a report to the congressional defense committees on the cost and potential schedule implications of either returning USS Kennedy (CV-67) to service or retaining USS Kitty Hawk (CV-63) in service during the period between the scheduled retirement of CVN-65 and the commissioning of CVN-78. The committee directs the Secretary to include in the report the number and location of dry-docks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV-63 or CV-67.*

Navy remains committed long term to a force structure of a minimum of 11 CVNs. Navy has evaluated all options to maintaining 11 CVNs for the period between the inactivation of CVN 65 and the commissioning of CVN 78. Navy has found that leveraging the inherent flexibilities of the Fleet Response Plan while operating ten CVNs during this period provides the necessary operational availability while eliminating the technical risks, manpower challenges, industrial base constraints, and financial risk associated with each of the several options to maintain 11 aircraft carriers.

II. Executive Summary

While technically feasible, reactivation of a fossil-fueled aircraft carrier would be exceptionally challenging given the capacity of the industrial base, our ability to attract and train unique engineering skill sets needed to operate these platforms, and current fiscal pressures. The limiting factor to execute a reactivation will soon be the amount of time required to adequately prepare and then execute the plan. In fact, a decision must be made and fiscal arrangements complete this fiscal year for CV 63. Initial ship check and design work should have started in September 2008 for CV 67.

Navy's industrial base is constrained by the capacity of both drydocks and skilled labor. The cumulative effect of these constraints relevant to this analysis is a trade off of CVN class maintenance plan scheduled depot maintenance for the capacity to reactivate a fossil-fueled carrier. The decision impacts both the material condition and operational availability of the Fleet across several years. Even after shifting the Docking Phased Incremental Availabilities (DPIAs) for CVN 68, CVN 76, and CVN 74 to the right by at least twelve months, reactivating CV 63 at Puget Sound Naval Shipyard (PSNS) would require a spike of skilled labor of more than 33% above projected baseline.

The manpower challenges of returning either carrier to active service are best illustrated by the difficulties of acquiring and training engineering skill sets unique to this class of ships. 1200-PSI Superheated Steam mechanics and operators (an NEC for Machinist's Mates (MMs)) will become obsolete at CV 63's scheduled decommissioning. There have been no facilities or instructors for this skill set for more than a year already.

The cost to reactivate either carrier easily exceeds $3B. This investment provides our nation additional Carrier Strike capacity for the period between inactivation of CVN 65 and commissioning of CVN 78. These carriers would not be limited by remaining fuel, as with CVN 65, but rather the ability to continue to safely operate the complex machinery that is the heart of a modern aircraft carrier. They could provide one to two deployments during this timeframe; not enough to mitigate the perturbations required to accommodate their reactivation availability.

This report identifies the series of coordinated events necessary to return a fossil-fueled aircraft carrier to service, evaluating the associated cost and schedule implications resulting from executing them across several factors: Technical Risk, Manpower Challenges, Industrial Base, Financial Impact, and Operational Availability.[1] Table 1 summarizes the assessment results.

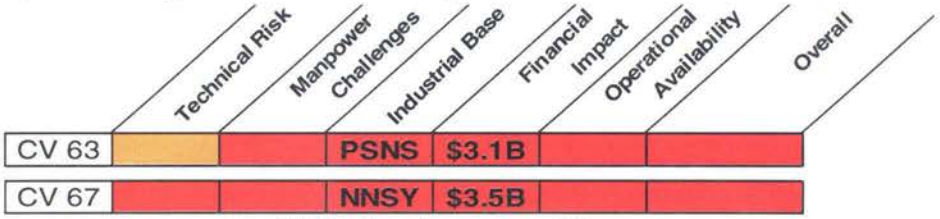


Table 1 – Assessment Summary

[1] This evaluation methodology is consistent with previous Navy evaluation of cost and schedule implication associated with extending CVN 65.

III. Methodology

The methodology begins with the maintenance and manning needed to reactivate the ship. The Prospective Commanding Officer, in consultation with Naval Sea Systems Command (NAVSEA) and the Supervisor of Shipbuilding, Conversion & Repair (SUPSHIP) determines the material readiness of an aircraft carrier's systems prior to reactivation. The Board of Inspection & Survey (INSURV) follows this determination with its independent assessment and identifies discrepancies for use as a readiness baseline. Although criteria are established for determining material readiness, the Fleet will decide whether the ship will meet its design capabilities and be able to meet operational requirements. The assessment progresses through commissioning and incorporation of the carrier in the Fleet operations and maintenance plans through the decommissioning of the reactivated carrier immediately following commissioning of CVN 78.

A. Technical Risk. Technical risk evaluates the engineering risk associated with repairing and modernizing the ship to established weapons platforms and systems standards. This analysis also considers the technical risk inherent in sustaining the platform throughout the expected operational period. For this report, the technical risk evaluation begins with the current and expected material condition of the equipment at the start of the reactivation availability, expected mean time between failure of installed systems, and those inspections that would be required prior to reactivation. Age is a significant factor in evaluating the technical risk for these platforms since both carriers are approaching or will have exceeded 50 years of hull life; a time horizon for which there is no Navy precedent. The evaluated level of technical risk is an element that contributes to the composite risk to achieving the overall cost, schedule, and performance parameters of the reactivation. Detailed technical risk for CV 63 and CV 67 is contained in Addendum 1.

B. Manpower Challenges. Manpower challenges describe issues associated with reestablishing ship's company. The current inventory and ability to recruit and train additional required personnel are examples of manpower and personnel issues considered in this evaluation. Accordingly, the specific required skill sets, the training time required to achieve necessary proficiency in those skill sets, and personnel distribution considerations are all factor in assessing manpower challenges. The manpower challenges for reactivating CV 63 and CV 67 are very similar. Detailed Manpower risk and associated cost analysis is located in Addendum 2.

C. Industrial Base. This assessment examines not only the availability of required maintenance facilities (i.e. drydocks) but also the capacity of the available workforce required to perform the maintenance and modernization. Impact to existing maintenance schedules, matching required maintenance and maintenance facility parameters, and matching the quantity and availability of required maintenance and modernization labor skill sets are considered in this evaluation. Additionally, the current location of the platform and the accommodations necessary to transport the platform and the workforce to another industrial facility are also considered. Addendum 3 includes additional detail of United States shipyards, both public and private, which contain drydocks with sufficient capacity to dock and make repairs to either CV 63 or CV 67.

D. Financial Impact. The fiscal impact depicts the projected costs to reactivate the platform to include reactivation maintenance and modernization costs, operations and maintenance costs through the commissioning of CVN 78, and manpower costs accrued during the reactivation availability through de-crewing following decommissioning. Operations and maintenance costs include fuel, onboard repair parts, utilities, administrative, and organizational and intermediate level condition-based maintenance. Reactivation availability costs include all costs incurred associated with the maintenance and modernization required to return the ship to active in-service carrier standards. Manpower costs include the cost of recruiting, training and distributing personnel in addition to base pays, benefits, and manpower accrual account expenses.

E. Operational Availability (Ao). This analysis offers a measurement of the return on the investment in terms of cumulative impact to the annualized presence and surge capability of the Fleet. The FRP Ao construct of the number of deployed carriers plus the number of surge capable carriers (deployable within 30 days) plus the number of carriers ready for tasking (deployable within 90 days) was the framework used for this evaluation. The baseline used is the optimized ten-carrier schedule used in previous Navy carrier waiver legislation evaluations. This analysis is not fiscally constrained; that is, it assumes the availability of operations and maintenance funding for the force structure used in the derived schedules.

IV. USS KITTY HAWK (CV 63)

Commissioned in April 1961, USS KITTY HAWK has completed more than 47 years of honorable service and is being prepared for FY09 decommissioning in Bremerton, Washington. Navy's last fossil-fueled aircraft carrier, USS KITTY HAWK served for the last 10 years as a Forward Deployed Navy Force (FDNF) asset homeported in Yokosuka, Japan. In this capacity she was operational eight months every year and received a single annual 120 day maintenance period during which time her material condition never precluded her from being more than 60 days away from operational tasking. USS KITTY HAWK's operating tempo was more than 33% above the Fleet average for non-FDNF aircraft carriers during this tour of duty.

Navy will place USS KITTY HAWK in a Maintenance Category B/Standard inactivation classification. This inactivation classification provides for accelerated reactivation timelines compared to other classifications should reactivation be required. In addition to cathodic protection, blanking of major systems, and dehumidification, the inactivation includes additional lay-up maintenance and preservation, component removal for controlled storage or refurbishment, and part cannibalization restrictions. Additional information regarding inactivation classification is included at Addendum IV.

Reactivation Scenario.

This scenario is generated by reverse engineering the steps required to maintain, modernize, and man the carrier prior to November 2012 (CVN 65 inactivation) (Table 2). The initial step involves advanced reactivation availability planning and long lead-time material procurement. This step would take twelve months based on the scope of the availability. The 24 month long reactivation availability would be conducted at Puget Sound Naval Shipyard beginning in

November 2010 and include a ten month docking period. Manning the platform follows the pattern of new construction where minimal manning commences during the advanced planning phases and increases to 39% manning six to seven months prior to the beginning of the reactivation availability, with the remaining crew build-up beginning seven to eight months into the availability. The reactivated carrier would enter the composite carrier operational schedule beginning with unit level training in December 2012. A decision is required and initial funding put in place at the beginning of April 2009 to execute this scenario.

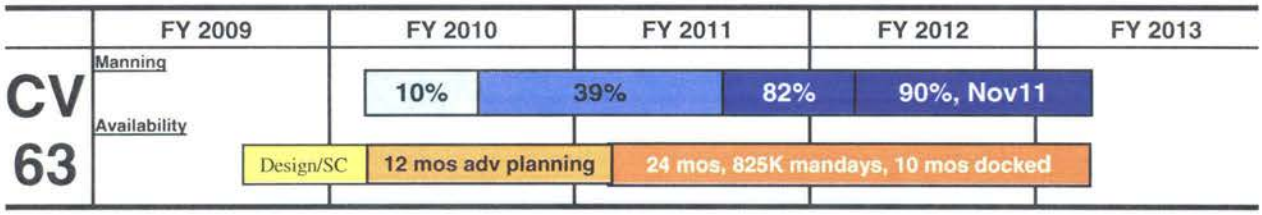


Table 2 – CV 63 Reactivation Scenario

A. Technical Risk. The Technical Risk involved in reactivating CV 63 is significant. On 12 August 2008, Commander, Naval Air Forces and Commanding Officer, U.S. Naval Ship Repair Facility and Japan Regional Maintenance Center reported the results of their joint assessment of USS KITTY HAWK's material condition[2]. The assessment combined the knowledge and experience of the Yokosuka-based KITTY HAWK project team with the CV 63 Current Ship's Maintenance Project (CSMP). Outstanding modernization alterations of the ship's C4I and other tactical systems were documented in the joint assessment and are included in the reactivation availability analysis for this report. Additionally, there are four Major departures from specification and 86 minor departures. The comprehensive joint report included detailed analysis of Engineering, Aircraft Launch and Recovery Equipment (ALRE) and Aircraft Support Systems, Damage Control, Tanks and Voids, Environmental Protection, Habitability, and Underwater Hull.

Engineering. The main propulsion boilers of this 1200-pound steam plant would require moderate maintenance including acid cleaning of the superheater tubes on seven of eight boilers. One of four main condensers would require retubing. Both control air compressors require overhaul. All Ship Service Turbine Generators (SSTGs) show excessive ground readings on armatures during prolonged operations as a result of the break down of armature insulation and build up of carbon dust. The ship's electrical distribution panels are operating near 100% rated capacity such that C4I modernization may require additional capacity.

ALRE and Aircraft Support Systems. Other than the replacement of all nonskid surfaces, the vast majority of ALRE and Aircraft Support Systems would be well out of periodicity on maintenance and require inspection and corrective maintenance prior to flight deck certification. Additionally, all boat davit, Underway Replenishment (UNREP) stations, and weapons elevators will require cable replacement.

[2] Submitted in lieu of completing an INSURV prior to decommissioning as required by OPNAVINST 4770.5F

Damage Control. A thorough grooming will be required for all damage control equipment to include eductors and magazine sprinkler system.

Tanks and Voids. All fuel tanks, potable water tanks, oil storage tanks, main reduction gear sumps, JP-5 tanks, and damage control voids will require open and inspect.

Environmental Protection. Oily waste System certification will be required. CHT tanks one through four were preserved in 2007.

Habitability. A minimum of 25% of all berthing spaces will require renovation including numerous ventilation fan system maintenance. 70 sanitary spaces will require renovation. Galley refrigeration and food preparation equipment will require extensive repair or replacement.

Underwater Hull. The last docking was May – September 2003. Port and starboard rudders will require removal and inspection of rudderposts and replacement of oil seals. Shafting and propellers will require assessment.

Modernization. Seventeen outstanding ship alterations were identified, mostly C4I upgrades. Further, minimal modernizations were conducted on CV 63 during the past five years in accordance with Section 8053 of the FY98 DOD Appropriations Act, which prohibits the use of appropriations to modify any weapon platform within five years of the planned disposal of that platform. The only modifications not covered by this statute were safety modifications.

Upon reactivation, the ship must be safe and mission ready. CV 63 would be operating beyond Navy's experience base and therefore require significant engineering and maintenance investment to ensure acceptable material condition. The investment and challenges to maintaining operational availability (Ao) increase with the cumulative effects of system degradation and obsolescence.

B. Manpower Challenges. The challenges involved with remanning CV 63 include additional recruiting associated with increasing end strength and re-establishing training pipelines for legacy engineering skill sets. It takes significantly longer than three years (2009-2012) to grow the many skill sets required to operate and fight an aircraft carrier. This would result in the sharing of journey and master level enlisted personnel across the Fleet potentially causing readiness gaps on other Fleet assets.

Re-phasing Boot Camp for the additional recruits minimizes negative impacts to basic training, although this strategy would increase overhead costs associated with infrastructure and the individuals account (IA). Required individual and team training for personnel assigned to this unique platform will be challenging. Navy no longer operates a 1200-PSI steam-training course. CV class specific courses (i.e. Boiler Water/Feed Water) would require reactivation to include required facilities and faculty.

C. Industrial Base. An 825K man-day availability is required prior to reactivation of CV 63, given her current and expected material condition in November 2010. The scope of the availability requires the duration of the availability to be 24 months including a minimum of 10

months in a drydock. 12 months of advanced planning and long lead-time material procurement are also necessary. The availability includes significant modernization work including work necessary to support new aircraft including the E/A-18G and C4I upgrades. West coast facilities that have drydock capability to perform the required maintenance on CV 63 include Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF) and Pearl Harbor Naval Shipyard & Intermediate Maintenance Facility (PHNSY & IMF). The capacity of the labor force is the limiting factor. PHNSY & IMF does not possess the labor force or skill sets necessary to perform this type of major aircraft carrier work without significantly disrupting scheduled critical submarine overhauls during this period. PSNS & IMF does possess the required skills sets, but in addition to normal aircraft carrier and submarine work scheduled at PSNS & IMF, the labor force is used extensively in flyaway detachments (as many as 750 personnel) for depot level repairs in San Diego and Yokosuka, Japan. The scheduling of another significant out-of-homeport availability in Pearl Harbor requiring an ongoing workforce of approximately 1800 men/day for a 2-year period would pose unacceptable long-term risk to the health and long-term stability of the labor force at PSNS & IMF. Thus, even though conducting the reactivation availability in PSNS & IMF would result in substantial disruption of previously planned maintenance; this is the only available option. USS NIMITZ (CVN 68) is scheduled for a Super Docking Planned Incremental Availability (SDPIA) including an eleven-month docking from December 2010 to November 2011. There is insufficient capacity at PSNS & IMF in critical trades (including Main Engines (steam turbines), SSTGs, and Level 1 welding) to simultaneously conduct a CV 63 reactivation and CVN 68 SDPIA. The propulsion plants of both these ships require specially qualified technicians and QA personnel that cannot be outsourced nor quickly trained. The lack of these personnel would put the schedules of all availabilities at PSNS & IMF at increased risk of late completion. Additionally, the rescheduling cascades through availabilities for CVN 76 and CVN 74. Table 3 graphically depicts these impacts.

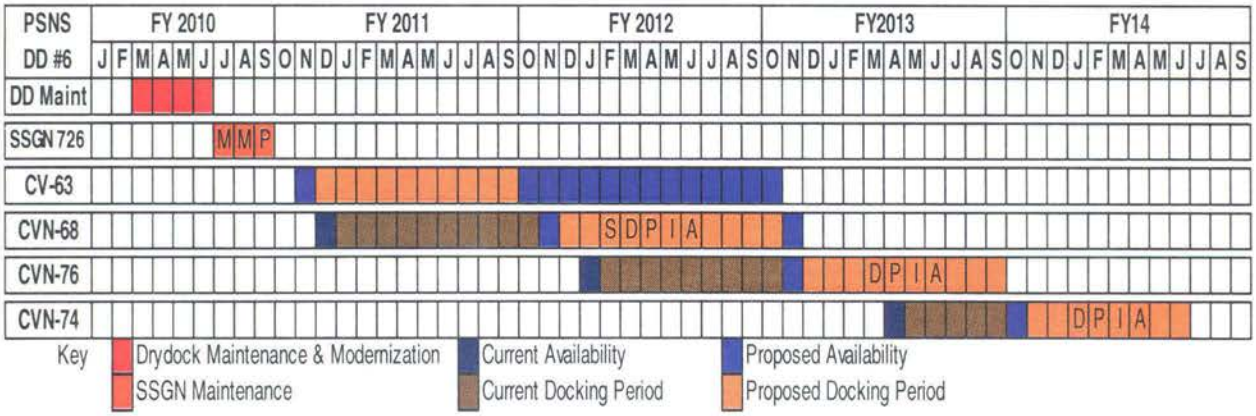


Table 3 – PSNS & IMF Schedule for Drydock #6

D. Financial Impact. The overall financial impact of reactivating CV 63 exceeds $3.1B. This includes $0.8B in SCN and O&M,N to accomplish the reactivation availability and ongoing maintenance and modernization, $0.3B in O&M,N operating costs, and more than $2B on total manpower costs. These amounts and the required cash flow are depicted in Table 4 below:

$M	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	Totals
Reactivation Availability (SCN)	$22	$89	$276	$72							$437
Manpower (MPN and O&M,N)		$89	$203	$257	$266	$277	$297	$298	$254	$83	$2,024
Operations (O&M,N)			$4	$22	$43	$87	$110	$31	$11	$2	$310
Maint & Mod (O&M,N)					$114	$119	$123				$356
Totals	$22	$178	$483	$351	$423	$483	$530	$329	$265	$85	$3,127

Table 4 – Required Cash Flow to Reactivate CV 63

E. Operational Availability. Reactivating CV 63 would allow for one additional seven-month deployment in FY15, which increases presence by 22 total days between FY12 and FY16. Additionally, there would be more than 90 days less Combatant Commander (COCOM) presence compared to the base case in FY13 and FY14. Table 5 compares the presence achieved using an optimized 10 CVN schedule (based on a November 2012 inactivation of CVN 65) to that of an 11 CV/CVN schedule (achieved by reactivating CV 63). Reactivating CV 63 results in reduced presence to operating theaters, totaling 95 days across FY13 and FY14. Table 6 illustrates the Fleet Response Plan measures for the base and CV 63 reactivation cases from FY12 through FY16. This scenario results in slightly improved Fleet Response Plan (FRP) measures for 30-Day availability in four of the five years offset by a corresponding net decrease in 90-Day availability. Of greater concern is the two consecutive quarters in FY13 when we could not achieve our minimum 5+1 FRP measure for any given quarter. This increases risk to achieving response times to national emergencies.

	FY2012	FY2013	FY2014	FY2015	FY2016
Do Not Reactivate CV 63	2.97	2.42	2.40	2.36	2.64
Reactivate CV 63	2.97	2.16	2.13	2.56	2.72

Table 5 – COCOM Presence Comparison

		FY2012				FY2013				FY2014				FY2015				FY2016			
Do Not Reactivate CV 63	30 Day	7	5	6	6	7	5	5	6	7	6	5	6	6	6	6	7	6	5	5	5
	90 Day	0	2	2	1	0	3	2	1	0	1	2	1	1	1	2	0	1	2	1	3
Reactivate CV 63*	30 Day	8	6	7	5	6	4	4	6	7	6	7	7	6	6	5	6	7	5	6	5
	90 Day	0	1	1	1	1	4	3	1	1	1	1	1	1	0	2	1	1	1	0	2

*Moderate risk that CVN 68 would be operationally available in FY2012 while waiting for delayed scheduled depot maintenance.

Table 6 – Fleet Response Plan Comparison

V. JOHN F. KENNEDY (CV 67)

Commissioned in September 1968, JOHN F. KENNEDY completed more than 38 years of honorable service and was decommissioned on 1 August 2007 in Mayport, Florida. One of the last fossil-fueled aircraft carriers, JOHN F. KENNEDY was stationed for her last 12 years of service at the Naval Station Mayport. During this time, she completed three deployments. Prior to her service in Mayport, CV 67 was classified a reserve training asset in the early 1990's and funded to 50% of the notional carrier maintenance funding levels. A planned 2005 15-month Service Life Extension Program (SLEP) was cancelled as part of the decision to decommission her more than ten years earlier than initially planned. Following decommissioning, the ship was towed to Naval Station Norfolk, Virginia, arriving on 31 July 2007. The ship's tow to the Navy's inactive ship maintenance facility in Philadelphia, PA was delayed due to water depth concerns identified by the Delaware River Pilots Association in July 2007. The Navy accomplished dredging acceptable to the Pilots Association in the vicinity of Pier 4 in Philadelphia, and the ship was safely towed, arriving in March 2008. The final phase of the ship's inactivation, primarily cleaning of the ship's fuel oil tanks, was completed in December 2008. Further details regarding CV 67 disposition were previously reported to Congress in September.[3]

As required by the FY07 National Defense Authorization Act, the Navy is maintaining the ship in a state of preservation (including configuration control, dehumidification, cathodic protection, and maintenance of spares) that would allow for reactivation in the event JFK is needed in response to a national emergency. This condition will be maintained through the delivery of USS GEORGE H. W. BUSH (CVN 77). Additional information regarding inactivation classification is included at Addendum IV.

Reactivation Scenario.

This scenario is generated by reverse engineering the steps required to maintain, modernize, and man the carrier prior to November 2012 (CVN 65 inactivation) (Table 7). A decision was required and initial funding should have been in place at the beginning of September 2008 to execute this scenario at nominal programmatic risk levels. The initial step involves advanced reactivation availability planning and long lead-time material procurement. This step would take 15 months based on the scope of the availability. The 30 month long reactivation availability would be conducted at Norfolk Naval Shipyard beginning in May 2012 and include a 14 month docking period. Manning the platform follows the pattern of new construction where minimal manning commences during the advanced planning phases and increases to 39% manning six to seven months prior to the beginning of the reactivation availability, with the remaining crew build-up beginning seven to eight months into the availability. The reactivated carrier would enter the composite carrier operational schedule beginning with unit level training in December 2012.

---

[3] *Disposition of USS JOHN F. KENNEDY (CV 67),* Naval Sea Systems Command, September 2008

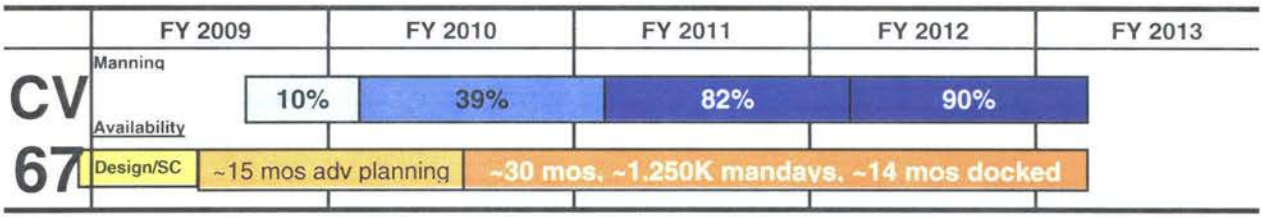


Table 7 - CV 67 Reactivation Scenario

A. Technical Risk. The technical risks for CV 67 are substantially higher than CV 63. JOHN F. KENNEDY was decommissioned from a lower state of material readiness and placed in a Safe Stow inactivation. Her last depot maintenance including a drydocking period was in 1994. The Number 3 shaft had many defects in the coating system and it is anticipated that all the shafting would need to be removed and refurbished. Due to extended operating cycles, reduced maintenance funding and the cancellation of a Service Life Extension Program (SLEP), CV 67 experienced severe material condition degradation prior to decommissioning. Specific manifestations of this degradation include the accelerated deterioration of the arresting gear and catapults (including decertification of 2 of 4 catapults in 2006), major equipment foundations, and numerous tanks. At inactivation, the CV 67 had used all available electrical growth in the ship's design, and at times came close to exceeding the ratings of the circuit breakers installed. To allow for upgrades necessary to operate in 2012 - 2015 (combat systems, aircraft integration and ship habitability), there is a high probability an upgrade will be needed for the ship's primary electrical systems. In general, across the spectrum of Engineering, Aircraft Launch and Recovery Equipment (ALRE) and Aircraft Support Systems, Damage Control, Tanks and Voids, Environmental Protection, Habitability, and Underwater Hull, CV 67 presents significantly more technical risk than CV 63.

The condition of distributed systems such as the 1200-PSI steam piping system, the collecting, holding, and transfer (CHT) piping systems, electrical wiring are of particular concern as the ship ages, due to the extent of monitoring required and the safety consequences of failure. We have already experienced equipment failures on CV 67 at rates that caused significant concern.

B. Manpower Challenges. The CV 67 manpower challenges are similar to those of CV-63. The challenges involved with remanning CV 67 include additional recruiting associated with increasing end strength and re-establishing training pipelines for legacy engineering skill sets. It takes significantly longer than three years (2009-2012) to grow the many skill sets required to operate and fight an aircraft carrier. This would result in the sharing of journey and master level enlisted personnel across the Fleet potentially causing readiness gaps on other Fleet assets.

Re-phasing Boot Camp for the additional recruits minimizes negative impacts to basic training, although this strategy would increase overhead costs associated with infrastructure and the individuals account (IA). Required individual and team training for personnel assigned to this unique platform will be challenging. Navy no longer operates a 1200-PSI steam-training course. CV class specific courses (i.e. Boiler Water/Feed Water) would be reactivated to include required facilities and faculty.

C. Industrial Base. A 1,250K man-day availability is required prior to reactivation of CV 67, given her current material condition. The scope of the availability requires the duration of the availability to be a minimum of 30 months including a minimum of 14 months in a drydock. 15 months of advanced planning and long lead-time material procurement are also necessary. The availability includes significant modernization work including work necessary to support new aircraft including the F/A-18E/F and E/A-18G and C4I upgrades. East coast facilities that have the capability to perform the required maintenance on CV 67 include Norfolk Naval Shipyard (NNSY) in the public sector and Northrop Grumman (Newport News, Virginia), Avondale Shipbuilding (Westwego, Louisiana), and Akers Shipyard (Philadelphia, Pennsylvania) in the private sector.[4] Norfolk Naval Shipyard would be the least costly and disruptive option for the east coast but could not be executed without extensive perturbations to current carrier operations and maintenance schedules. Additionally, docking would be delayed as a result of scheduled maintenance and modernization work on NNSY Drydock #8, the carrier certified dock. The CV 67 reactivation availability would necessitate shifting CVN 75 Docking Planned Incremental Availability a minimum of one year to the right (even using the shortest dock reset period – one month). This results in a 12-month loss of operational availability of CVN 75 and would incur high cost and schedule risk as a result of overlapping CV / CVN availabilities. Additionally, insufficient overall work force capacity would cause delays to scheduled submarine work (SSBN 736 Refueling Overhaul and SSN 750 Engineered Overhaul), resulting in downstream operational impacts for these units. This action would also shift LHA 4 Docking Planned Maintenance Availability to the private sector in FY12. Critical skilled trades' shortages would be severe with the reactivation of CV 67 at NNSY, disrupting currently scheduled work and affecting Fleet schedules. Table 8 graphically depicts these impacts.

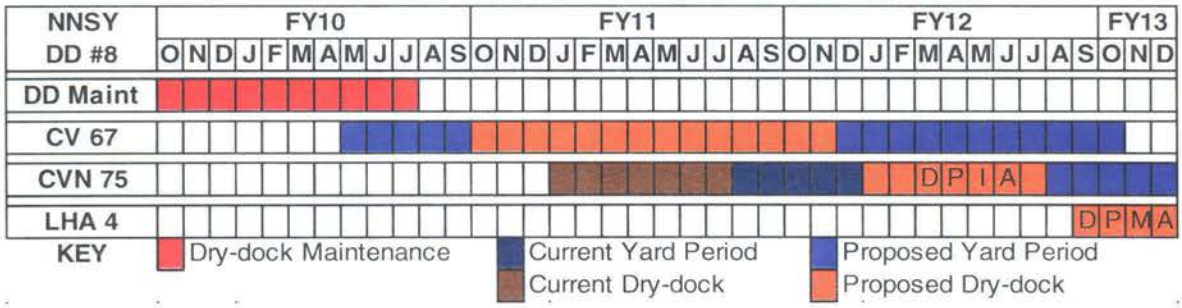


Table 8 - NNSY Schedule for Drydock #8

D. Financial Impact. The overall financial impact of reactivating CV 67 approaches $3.5B. This includes $1.1B in SCN and O&M,N to accomplish the reactivation availability and ongoing maintenance and modernization, more than $0.3B in O&M,N operating costs, and more than $2B on total manpower costs. These amounts and the required cash flow are depicted in Table 9 below:

[4] Using Northrop Grumman would exacerbate the delivery of CVN 78. Using Avondale Shipyard would require removal of the mast and Island to clear the 133' height restriction of the Huey P. Long Bridge. Using Akers Shipyard would require recertification of the drydock and the displacement of existing commercial contracts for tanker construction.

$M	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	Totals
Reactivation Availability (SCN)	$37	$149	$466	$121							$736
Manpower (MPN and O&M,N)	$44	$115	$223	$257	$266	$277	$297	$298	$254	$83	$2,070
Operations (O&M,N)	$2	$6	$22	$29	$43	$110	$87	$31	$11	$2	$341
Maint & Mod (O&M,N)					$105	$110	$114				$329
Totals	$83	$270	$711	$407	$414	$387	$384	$329	$265	$85	$3,476

Table 9 - Required Cash Flow to Reactivate CV 67

E. Operational Availability. Reactivating CV 67 would allow for one additional six-month deployment in FY14, which increases presence by 55 total days between FY12 and FY16. Table 10 compares the presence achieved using an optimized 10 CVN schedule (based on a November 2012 inactivation of CVN 65) to that of an 11 CV/CVN schedule (achieved by reactivating CV 67). The biggest impact of reactivating CV 67 occurs in FY14 when we would provide an additional 116 days of presence to the operating theaters (2.72 total CSGs). Table 11 illustrates the Fleet Response Plan measures for the base and CV 67 reactivation cases from FY12 through FY16. This scenario results in excess capacity measured by Fleet Response Plan (FRP) 30 Day availability between FY14 and FY16. Similar to the CV 63 scenario, there is one quarter in FY13 where we could not achieve our minimum 5+1 FRP measure for a given quarter. This increases risk to achieving response times to national emergencies.

	FY2012	FY2013	FY2014	FY2015	FY2016
Do Not Reactivate CV 67	2.97	2.42	2.40	2.36	2.64
Reactivate CV 67	2.78	2.38	2.72	2.42	2.64

Table 10 - COCOM Presence Comparison

		FY2012				FY2013				FY2014				FY2015				FY2016			
Do Not Reactivate CV 67	30 Day	7	5	6	6	7	5	5	6	7	6	5	6	6	6	6	7	6	5	5	5
	90 Day	0	2	2	1	0	3	2	1	0	1	2	1	1	1	2	0	1	2	1	3
Reactivate CV 67	30 Day	7	5	6	5	6	4	5	6	8	7	7	8	6	7	6	7	8	6	6	5
	90 Day	0	1	1	1	1	5	3	1	0	1	2	1	2	1	2	1	1	1	0	3

Table 11 - Fleet Response Plan Comparison

VI. Summary

While technically feasible, reactivation of a fossil-fueled aircraft carrier would be exceptionally challenging given the capacity of the industrial base, our ability to attract and train unique engineering skill sets needed to operate these platforms, and current fiscal pressures. Navy

would be at the outer limits of our fossil-fueled carrier experience base, resulting in extraordinary efforts to maintain and operate these platforms. Timing of the decision to adopt one of these alternative courses of action is directly relational to the time required to reactivate one of these ships. Should one of these alternatives be adopted, additional analysis should be conducted to explore all possible avenues to minimize the resultant perturbations to Fleet operational and maintenance schedules including a capability-based assessment of required force structure during this period across all services.

Restoring either of these ships for this relatively short duration would overextend the industrial base for critical skill sets, require inordinate economic rents for manpower, and add a great deal of fiscal pressure to the Navy. The investment and challenges to maintaining operational availability increase with the cumulative effects of system degradation and obsolescence. Reactivating a fossil-fueled aircraft carrier would generate only a marginal increase in presence and surge capability.

Table 12 visually depicts the high risk associated with these alternatives.

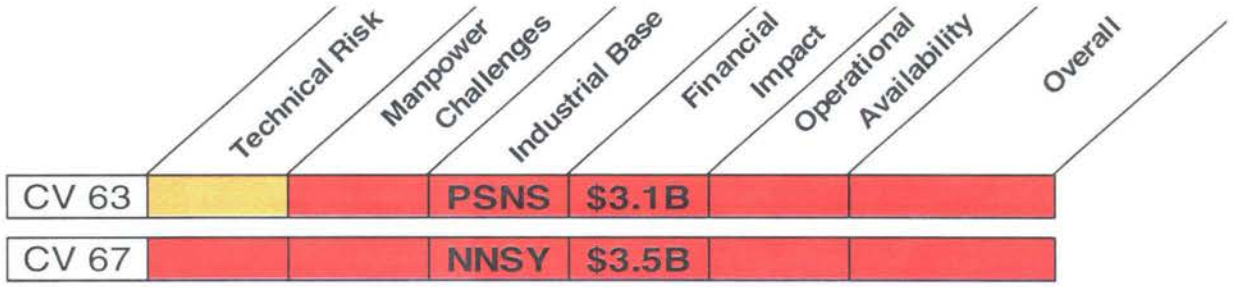


Table 12 - Assessment Summary

Addendum I: Additional Technical Risk Detail

USS KITTY HAWK (CV 63)

Current Ship Maintenance Project (CSMP): deferred maintenance requiring depot-level support:

- Hull Structures (general) – 129 Job Sequence Numbers (JSNs)
- Propulsion Plant (general) – 69 JSNs
- Electric Plant (general) – 96 JSNs
- Command and Surveillance (general) – 21 JSNs
- Auxiliary Systems (general) – 184 JSNs
- Outfitting and Furnishings (general) – 92 JSNs
- Weapons and Armament (general) – 21 JSNs

Propulsion and Auxiliary Systems:

- All 8 boilers will require 5-year inspections at reactivation
- 4B boiler superheater tubes will be beyond the expected lifespan of 10 years and require replacement
- Remote operating systems for emergency bilge suction and throttle valves will require inspection and/or repair
- All system relief valves will require testing/setting/repair
- All main seawater remote operators will require testing and repairs
- Nr 1 Main Condenser has a history of leaking tubes but is still below the 10% allowable for plugged tubes
- Control Air Compressors will require assessments and overhauls
- O2N2 (oxygen generation) Plants are obsolete and may require extensive repairs to reactivate.
- Propulsion shafting was last inspected in August 2008 with the following findings:
  - The port outboard shaft has three areas of bare metal with minor pitting.
  - The first area is 5 feet aft of the intermediate fairwater and is 14 inches in diameter at the site of a partially failed repair.
  - The second area is 18 ft 6 in aft of the intermediate fairwater and is 4 ½ in long by ¾ in wide.
  - The third area is 21 ft aft of the intermediate fairwater and is two in long by ½ in wide.
  - The starboard outboard rope guard has a dent 10 in long by 5 ½ in long and is 2 ½ in out of alignment.
  - The same rope guard has 50% exposed metal.
- The shafting will have to be assessed to see if it must be pulled during docking for inspection.
- Several catwalks exhibit corrosion that must be evaluated for continued service, with more repairs required for a longer service life.
- The B & A Crane was inactivated in June 2007 due to bearing casualties and is not operational.
- Both anchor chains have DFSs since all detachable links are worn beyond normal limits and require replacement.

- Ships Service Turbine Generators (SSTGs) were not able to maintain minimum ground readings on the armatures over prolonged operating periods. Insulation breakdown and carbon dust infiltration due to age is the suspected cause.
- The ship has a 140-amp Aircraft Electrical Servicing System (AESS) system, which will need to be upgraded to 180 amps for future aircraft needs.
- All Catapult accumulators will require 5-year inspections prior to reactivation.
- Aircraft elevators, flight deck elevator doors, and Hangar bay door will require assessments and probable cable replacements.
- Emergency diesel generator pyrometer panels need assessments and repairs.

Aviation Support Systems:

- Catapult accumulator 5-year inspections will be required for all accumulators.
- Verification and alignment of launch tracks will be required after sealing covers are removed.

JOHN F. KENNEDY (CV 67)

Propulsion and Auxiliary Systems:

- All 8 boilers will require 5-year inspections at reactivation
- Remote operating systems for emergency bilge suction and throttle valves will require inspection and/or repair
- All system relief valves will require testing/setting/repair
- All main seawater remote operators will require testing and repairs
- Ship Service and Control Air Compressors will require assessments and overhauls
- Service steam piping in zones 2, 4 and 5 require replacement of copper piping with copper-nickel piping and improved K-Monel fasteners.
- The ship's boilers need the economizer tubes replaced due to corrosion and wear.
- All four Main Condensers require retubing and shell repairs.
- O2N2 (oxygen generation) Plants are obsolete and may require extensive repairs to reactivate.
- The shafting will have to be pulled during docking for inspection.
- Several catwalks exhibit corrosion that must be evaluated for continued service, with more repairs required for a longer service life.
- Both anchor chains have Departures from Specifications (DFSs) since many detachable links are worn beyond normal limits and require replacement.
- The ship has a 140-amp Aircraft Electrical Servicing System (AESS), which will need to be upgraded to 180 amps for future aircraft needs.
- All catapult accumulators will require 5-year inspections prior to reactivation.
- The Jet Blast Deflectors (JBDs) require extensive rework and repair.
- Aircraft elevators, flight deck elevator doors, and hangar bay door will require cable replacements.
- The electrical distribution system is at full capacity and approaches the interrupt capacity of the disconnect breakers. The ship had been scheduled to receive an additional SSTG prior to deactivation and the electrical load issues will have to be revisited if the ship is recommissioned.

- Fuel oil, potable water, list & trim and ballast tanks have extensive coating failures documented.
- Many major systems were not inactivated with the intent of reactivation so that more extensive repairs and replacements may be required.

Aviation Support Systems:

- Catapult accumulator 5-year inspections will be required for all accumulators.
- Verification and alignment of launch tracks will be required after sealing covers are removed and significant corrosion damage to catapult wing voids is repaired.
- All aircraft recovery engine foundations and cable foundations require extensive structural repair and recertification.

Both CV 63 and CV 67

Obsolescence: Obsolete components are posing challenges to our ability to materially support continuing operations. Obsolescence has affected many components including:

- Emergency Diesel Generator (EDG) pyrometer panels
- Steering systems
- Circuit breakers
- Pneumatic Leslie Control components
- Switchboard relays
- Propulsion plant valves
- 1200 psi steam system components
- Cryogenic O2N2 plant components

All of these items are obsolete or have obsolete components. This requires our Depot maintenance activities to function as original equipment manufacturers (OEMs) to reverse engineer and produce one of a kind repair parts and sometimes to reconstitute "lost" design or repair knowledge. This is time consuming, expensive, and adds risk to our ability to depend on these sometimes-critical components to support future operations.

Addendum II: Additional Manpower Challenge Detail

ENDSTRENGTH

Operational End Strength Profiles	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Program of Record (POR)	3289	3289	3289	3289	3289	3289	3289	3289	3289	3289	3289
Total End Strength Required CVN-67 Option	3289	4473	5781	6328	4495	5350	6206	6106	5059	3428	2567
CV-67 Endstrength Not in POR	0	(1184)	(2492)	(3039)	(1206)	(2061)	(2917)	(2817)	(1770)	(139)	722
Total End Strength Required CVN-63 Option	3289	4468	5874	6443	4610	5465	6321	6221	5152	3363	2567
CV-63 End Strength Not in POR	0	(1179)	(2585)	(3154)	(1321)	(2176)	(3032)	(2932)	(1863)	(74)	722
Individual's Account End Strength Profile											
Basic Military Training not in the POR	(583)	(290)	(290)	(290)	(290)	(290)	(290)	(193)	(97)	0	0
Initial and Specialized Skills not in the POR	(486)	(162)	(162)	(162)	(162)	(162)	(162)	(108)	(54)	0	0

DOLLARS

Operational Manpower Cost Profiles $M											
Program of Record (POR)	$234.8	$249.1	$258.2	$267.8	$278.0	$288.7	$299.3	$311.2	$323.7	$336.6	$350.1
CV-67 Cost Not in the POR	$0.0	($99.6)	($186.6)	($247.3)	($256.8)	($266.6)	($276.4)	($287.5)	($246.2)	($89.5)	$0.0
CV-63 Cost Not in the POR	$0.0	($99.4)	($202.7)	($256.6)	($266.4)	($276.6)	($286.8)	($298.2)	($254.1)	($83.4)	$0.0
Student End Strength not in the POR	($91.43)	($32.54)	($33.80)	($35.06)	($36.46)	($37.86)	($39.26)	($13.61)	($14.15)	$0.00	$0.00
NETC Marginal Costs $M											
Initial Skills	($18.90)	($17.88)	($18.26)	($19.01)	($19.77)	($20.56)	($21.38)	($13.71)	($4.57)	$0.00	$0.00
Specialized Skills	($5.69)	($5.12)	($6.37)	($6.62)	($6.89)	($7.16)	($7.45)	($4.78)	($1.59)	$0.00	$0.00
Basic Military Training (Boot Camp)	($0.35)	($0.32)	($0.31)	($0.32)	($0.33)	($0.35)	($0.36)	($0.23)	($0.08)	$0.00	$0.00
Seabag Initial Issue	($5.22)	($1.80)	($1.87)	($1.95)	($2.03)	($2.11)	($2.19)	($1.41)	($0.47)	$0.00	$0.00
CNRC Accession Costs $M											
Enlisted Accession Costs not in the POR	($61.35)	($25.62)	($26.65)	($27.93)	($29.04)	($20.14)	($10.47)	$0.00	$0.00	$0.00	$0.00
Officer Accession Costs not in the POR	($7.94)	($2.69)	($2.81)	($2.92)	($3.04)	($1.94)	($1.01)	$0.00	$0.00	$0.00	$0.00
Enlisted and Officer PCS Cost Profile $M											
Based on FY08 CVN-74 Bremerton not in POR	($4.99)	($5.47)	($6.32)	($6.62)	($7.28)	($8.01)	($8.81)	($9.70)	($7.11)	($2.61)	$0.00
TAD, Firefighting, ALRE courses not in POR	0	0	0	($0.90)	($0.94)	($0.97)	($1.01)	($1.05)	($1.09)	0	0
											Grand Tota
Total Dollars needed CV-63 Option $M	($214.1)	($181.5)	($299.0)	($357.9)	($372.2)	($375.7)	($378.7)	($342.7)	($283.2)	($86.0)	$0.0	($2.89

Figure 1 describes the operational end strength profile required during the timeframe encompassing deactivation of CVN 65, the reactivation and subsequent deactivation of CV-63 or CV-67 and the commissioning and delivery of CVN 78. The program of record reflects 3,289 end strength supporting CVN 65. End strength levels decrease to 2,567 supporting CVN 78 in FY19. All numbers in parentheses are values not currently in the Program of Record.

Operational End Strength Profiles	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Program of Record (POR)	3289	3289	3289	3289	3289	3289	3289	3289	3289	3289	3289
Total End Strength Required CVN-67 Option	3289	4473	5781	6328	4495	5350	6206	6106	5059	3428	2567
CV-67 Endstrength Not in POR	0	(1184)	(2492)	(3039)	(1206)	(2061)	(2917)	(2817)	(1770)	(139)	722
Total End Strength Required CVN-63 Option	3289	4468	5874	6443	4610	5465	6321	6221	5152	3363	2567
CV-63 End Strength Not in POR	0	(1179)	(2585)	(3154)	(1321)	(2176)	(3032)	(2932)	(1863)	(74)	722

Figure 1. Operational End Strength Profiles

Figure 2 describes the cost of reactivating and subsequently deactivating CV-63 or CV-67 using POM-10 Military Personnel, Navy and Defense Health Appropriation, Navy programming rates. Costs beyond FY15 use a 4% inflationary rate. All numbers in parentheses are values not currently in the Program of Record.

Operational Manpower Cost Profiles $M	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Program of Record (POR)	$234.5	$249.1	$258.2	$267.8	$278.0	$288.7	$299.3	$311.2	$323.7	$336.6	$350.1
CV-67 Cost Not in the POR	$0.0	($89.6)	($195.6)	($247.3)	($256.8)	($266.6)	($276.4)	($287.5)	($245.2)	($89.5)	$0.0
CV-63 Cost Not in the POR	$0.0	($89.4)	($202.7)	($256.6)	($266.4)	($276.6)	($286.8)	($298.2)	($254.1)	($83.4)	$0.0

Figure 2. Operational Cost Profiles

The total operational manpower cost during this time frame is $1.955 billion for CV-67 and $2.014 billion for CV-63.

Training Cost Estimates

Figure 3 describes Naval Education and Training Command marginal cost of initial and specialized skills training required for the associated billet profile. Costs used a 4% inflation rate. All numbers in parentheses are values not currently in the Program of Record.

NETC Marginal Costs $M	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Initial Skills	($16.90)	($17.58)	($18.28)	($19.01)	($19.77)	($20.56)	($21.38)	($13.71)	($4.57)	$0.00	$0.00
Specialized Skills	($5.89)	($6.12)	($6.37)	($6.62)	($6.89)	($7.16)	($7.45)	($4.78)	($1.59)	$0.00	$0.00
Basic Military Training (Boot Camp)	($0.36)	($0.30)	($0.31)	($0.32)	($0.33)	($0.35)	($0.36)	($0.23)	($0.08)	$0.00	$0.00
Seabag Initial Issue	($5.20)	($1.80)	($1.87)	($1.95)	($2.03)	($2.11)	($2.19)	($1.41)	($0.47)	$0.00	$0.00
Total	($28.35)	($25.80)	($26.83)	($27.91)	($29.02)	($30.18)	($31.39)	($20.12)	($6.71)	$0.00	$0.00

Figure 3. Naval Education and Training Command Costs.

Basic Military Training can accommodate the increased throughput by scheduling this additional throughput to attend training in the first two quarters of the fiscal year. This phasing will result in higher IA costs and enlistment bonuses reflected in Figure 4. A change to the phasing would result in the need for additional base support and medical assets, which is infeasible with the stated timeline. An increase in end strength due to carrier reactivation would cause the demand for specialized skill training to exceed capacity at the aviation technical training center.

Figure 4. Describes the Chief of Naval Recruiting Command accession costs. These costs are comprised of major components, Sustaining, Direct, and Shared. Sustaining costs are required overhead costs associated with running the enterprise such as Admiral, Deputy, Special Assistants, and Front Office staff. Direct costs are costs associated with the actual recruiting process. Shared costs are associated with processes that are shared across the enterprise such as Advertising, Human Resources, Information Technology, and associated support. All numbers in parentheses are values not currently in the Program of Record.

CNRC Accession Costs $M	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Enlisted Accession Costs not in the POR	($81.35)	($25.60)	($26.85)	($27.93)	($29.04)	($20.14)	($10.47)	$0.00	$0.00	$0.00	$0.00
Officer Accession Costs not in the POR	($7.94)	($2.69)	($2.81)	($2.92)	($3.04)	($1.94)	($1.01)	$0.00	$0.00	$0.00	$0.00
Total	($89.30)	($28.29)	($29.66)	($30.84)	($32.08)	($22.08)	($11.48)	$0.00	$0.00	$0.00	$0.00

Figure 4. Chief of Naval Recruiting Command Accession Costs.

Figure 5 describes the Individual's Account end strength and cost profiles accounting for end strength required for student training in Boot Camp and specialized schools. All numbers in parentheses are values not currently in the Program of Record.

Individual's Account End Strength Profile	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Basic Military Training not in the POR	(863)	(290)	(290)	(290)	(290)	(290)	(290)	(193)	(97)	0	0
Initial and Specialized Skills not in the POR	(486)	(162)	(162)	(162)	(162)	(162)	(162)	(108)	(54)	0	0
Individual's Account Cost Profile $M	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Student End Strength not in the POR	($91.49)	($32.54)	($33.80)	($35.08)	($36.46)	($37.86)	($39.26)	($13.61)	($14.15)	$0.00	$0.00

Figure 5. Individuals Account End Strength and Cost Profile.

Figure 6. Describes the estimated Permanent Change of Station and Officer training costs required to homeport CV-63 or CV-67 in Bremerton, WA, based on CVN 74 FY08 costs. Enlisted training costs are contained in Figures 3, 4 and 5. All numbers in parentheses are values not currently in the Program of Record.

Enlisted and Officer PCS Cost Profile $M	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Based on FY08 CVN-74 Bremerton not in POR	$4.98	$5.47	$6.02	$6.62	$7.28	$8.01	$8.81	$9.70	$7.11	$2.61	$0.00
Officer Training Costs $M	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
TAO, Firefighting, ALRE courses not in POR	0	0	0	$0.90	$0.94	$0.97	$1.01	$1.05	$1.09	0	0

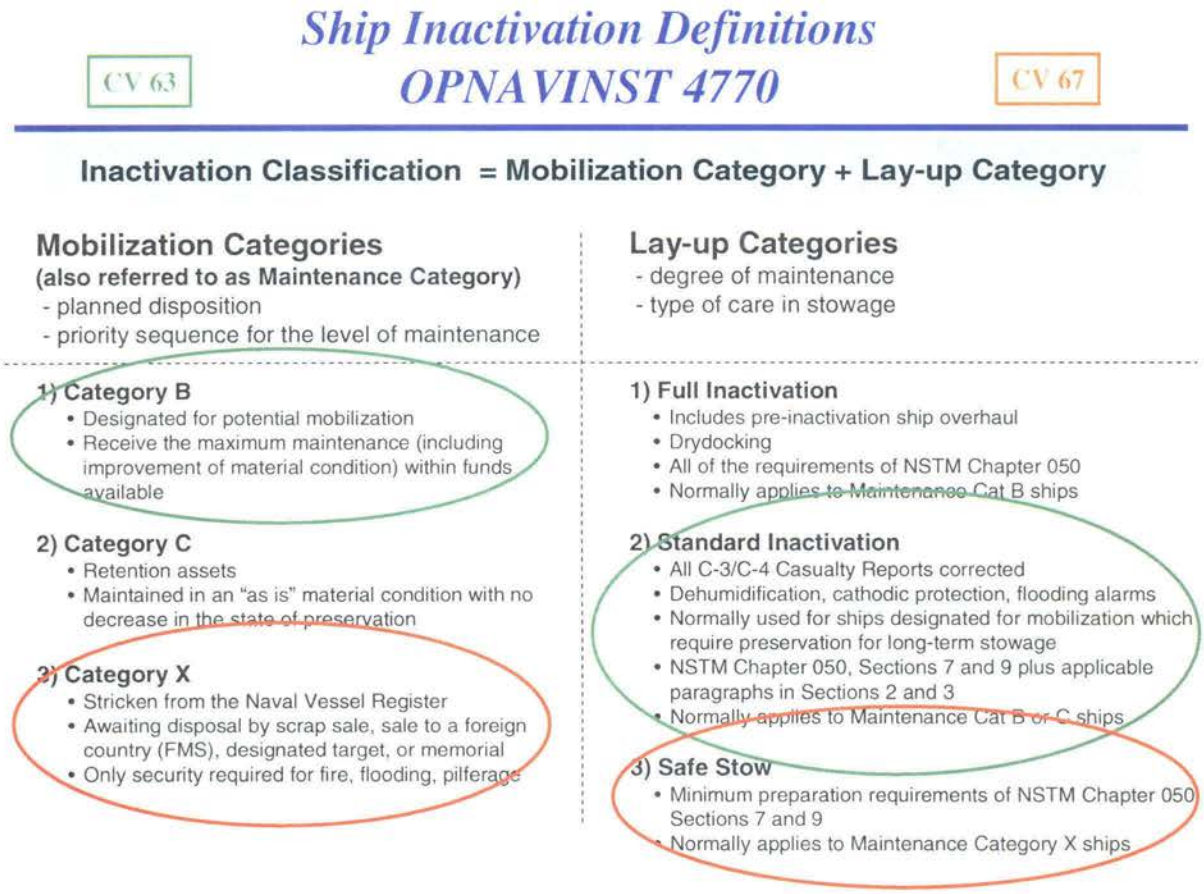
Figure 6. Permanent Change of Station and Officer Training Costs.

Addendum III: Shipyard Drydocks

A major overhaul including a drydocking period is required to reactivate USS KITTY HAWK (CV 63) and JOHN F. KENNEDY (CV 67). The magnitude of the reactivation availability would be comparable to more than two times a CVN DPIA to as much as half a CVN RCOH. This addendum identifies the number and location of drydocks in United States shipyards, both public and private, which have the capacity to dock and make repairs to either CV 63 or CV 67.

Drydock Location and Number	Currently Scheduled Maintenance	Impacts
PUGET SOUND NAVAL SHIPYARD & IMF		
Drydock #6	USS NIMITZ (CVN-68) FY11 SDPIA3 In dock Dec 2010 through Nov 2011	PSNS&IMF and the private sector do not have sufficient work force capacity to accomplish without major impact to these and other scheduled work.
	USS RONALD REAGAN (CVN-76) FY12 DPIA2 In dock Jan 2012 through Oct 2012.	
Drydock #5		Insufficient space in dry dock to support hull work or blast equipment for tank work. Upgrades are required.
		Dock Floor load upgrades are required. The estimate upgrade period, 6 months after award of contract.
PEARL HARBOR NAVAL SHIPYARD & IMF		
Drydock #4	USS CHOSIN (CG 65) FY10 DSRA In dock Oct 2010 through Dec 2010	CVN-68 to CVN-75 Nimitz class aircraft carriers approved for emergent dockings.
	USS HOPPER (DDG 70) FY 12 DSRA In Dock April 2012 through June 2012	If docking to support reactivation were required to commence by Nov 2010 then CG65 FY 10 DSRA would need to move left two months.
		The PHNSY&IMF and private sector do not have the work force capacity to support the work.
NORFOLK NAVAL SHIPYARD		
Drydock #8	USS HARRY S TRUMAN (CVN-75) FY11 DPIA3 In dock Jan 2011 through Dec 2011	NNSY and the private sector do not have sufficient work force capacity to accomplish without major impact to these and other scheduled work.
	USS NASSAU (LHA 4) DPMA In dock September 2012 through December 2012	
Note: Drydock #8 is to undergo major renovations and repairs to support new CVN-78 class overhauls during the same period needed to accomplish CV reactivation. Rescheduling would delay future CVN-78 overhauls due to failure to execute Drydock #8 renovati		
NORTHROP GRUMMAN SHIPBUILDING		
Drydock #11	USS THEODORE ROOSEVELT (CVN-71) In dock Sep 2009. The undocking date is under review but would expect to be through May 2011.	NGSB does not have the work force capacity to accomplish without impacting other scheduled RCOH and New Construction work.
AVONDALE SHIPYARD WESTWEGO, LA		
Drydock #1		Ship must be lower than 133 feet from Huey P. Long Bridge structure to mean high water. Mast would need removed and reinstalled going beyond 18-24 availability period.
PHILADELPHIA NAVAL SHIPYARD		
Drydocks #4 & #5		
Note: In the past, when Philadelphia Naval Shipyard was active with overhaul and repair of CV class vessels, Drydocks #4 & #5 were used respectively. These Drydocks are no longer used by the Navy; therefore, certification of the Drydocks was suspended.		

Addendum IV: Comparing Mobilization and Lay-up Categories



Categorical Comparison of Mobilization B and Strike Inactivations

PAINTING:
Strike – No preservation is authorized. Loose flaking exterior paint should be removed by rough scraping.
Mob B – All areas of corrosion should be preserved by removing rust & applying coat of primer for interior spaces. Exterior would require a coat of primer and one topcoat. No painting for purely cosmetic reasons is authorized. Exterior hull from water line to main deck would be preserved.

DRYDOCKING/ UW HULL:
Strike - No drydocking or u/w hull work to be authorized. No CP
Mob B – Drydocking is authorized. U/W hull to be cleaned and bare areas preserved. Sea valves would be exterior blanked by welding. Shafting, rudders, and running gear would all be cleaned & preserved. Rudder cavities and strut bearings would be cleaned and filled with preservative compound. CP would be installed.

MAIN PROPULSION:

Strike – Boilers & all rotating machinery would be drained of all fluids. Machinery sumps would be wiped clean of oil. No inactive equipment lay up procedures would be performed. Main engine/reductions gears would be drained and sumps wiped clean
Mob B – Boilers and associated equipment would be placed in a dry air lay up for long-term stowage. All rotating machinery (including main engines/reduction gears) would thoroughly drained and be preserved with grade II preservative. No repairs would be made to the equipment but CSMP should contain work items to affect any repairs upon reactivation.

ELECTRICAL SYSTEMS:
Strike – Ship's electrical distribution system must be tagged out so that only the lighting systems remain energized from the distribution system. No preservation or inactive equipment preservation would be accomplished.
Mob B – Ship's electrical system would be tagged out just as for strike. The SSTGs and all associated system would be drained, cleaned, and preserved with grade II preservative. The same procedures apply to the emergency diesel generators & distribution systems.

ELECTRONIC & IC SYSTEMS:
Strike – Systems would be electrically isolated and tagged out. No further work is authorized
Mob B – Systems would be electrically isolated and tagged out. All equipment such as 400 cycle mg sets, gyro systems, communication devices, & IC switchboards would be laid up using inactive equipment maintenance procedures. All external antennas removed and placed in hangar bay under DH. Otherwise, external DH huts would be installed.

MOORING SYSTEMS:
Strike – Anchor windlass & capstans would remain operational. All other equipment would be drained and sumps wiped clean. No other procedures would be followed.
Mob B - Anchor windlass & capstans would remain operational. All other equipment would be drained, cleaned and be preserved with grade II preservative. Anchor chains & ground tackle would be removed, inspected, cleaned, and preserved as necessary.
AIRCRAFT LAUNCH & RECOVERY SYSTEMS:
Strike – All equipment would be drained and sumps wiped clean. No other procedures would be accomplished.
Mob B – All equipment would be laid up per procedures provided by NAVAIR & ISEAs such as CAFSU.

FUEL SYSTEMS:
Strike – All tanks and lines would be drained and flushed.
Mob B - All tanks and lines would be drained and flushed. Associated equipment would receive inactive equipment lay up.

LOGISTICS:
Strike – Essentially all consumables, supplies, & spares would be removed.
Mob B – All consumables and items subject to deterioration would be removed. The storerooms and spares would remain at COSAL allowance. Appendix C of OPNAVINST 4770.5F provides guidance that is more specific.

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 7, 2009

The Honorable John Murtha
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

In response to the FY 2009 House Armed Services Committee Report 110-652 regarding "Naval Amphibious Force Structure," the enclosed report addresses the committee's concerns that the seabase should not be composed of non-combatant vessels such as the planned Maritime Prepositioning Force (MPF) aviation ship (MPF LHA) and the MPF landing platform ship (MPF MLP). As directed by the Congressional committees, the report provides details regarding the size and composition of the Naval Amphibious Force necessary without MPF LHA and MPF MLP vessels, to conduct operations from a seabase, with a force comprising two Marine Expeditionary Brigades (MEBs).

The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure requirement to support a 2.0 MEB lift is 38 total amphibious assault ships. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the Department of the Navy will sustain a minimum of 33 total amphibious ships in the assault echelon. This 33 ship force accepts risk in the arrival of combat support and combat service support elements of the MEB, but has been adjudged to be adequate in meeting the needs of the naval service within today's fiscal limitations.

The Department of the Navy recognizes the necessity to revisit the decisions reflected in the current shipbuilding plan as world events unfold to achieve the correct balance between expeditionary and prepositioning ships for meeting overall lift requirements.

A similar letter has been sent to Chairmen Inouye, Levin, and Skelton. If we can be of further assistance, please let us know.

G. Roughead
Admiral, U.S. Navy
Chief of Naval Operations

James T. Conway
General, U.S. Marine Corps
Commandant of the Marine Corps

Donald C. Winter
Secretary of the Navy

Enclosure: 1. Report to Congress on Naval Amphibious Force Structure

Copy:
The Honorable Bill Young
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 7, 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In response to the FY 2009 House Armed Services Committee Report 110-652 regarding "Naval Amphibious Force Structure," the enclosed report addresses the committee's concerns that the seabase should not be composed of non-combatant vessels such as the planned Maritime Prepositioning Force (MPF) aviation ship (MPF LHA) and the MPF landing platform ship (MPF MLP). As directed by the Congressional committees, the report provides details regarding the size and composition of the Naval Amphibious Force necessary without MPF LHA and MPF MLP vessels, to conduct operations from a seabase, with a force comprising two Marine Expeditionary Brigades (MEBs).

The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure requirement to support a 2.0 MEB lift is 38 total amphibious assault ships. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the Department of the Navy will sustain a minimum of 33 total amphibious ships in the assault echelon. This 33 ship force accepts risk in the arrival of combat support and combat service support elements of the MEB, but has been adjudged to be adequate in meeting the needs of the naval service within today's fiscal limitations.

The Department of the Navy recognizes the necessity to revisit the decisions reflected in the current shipbuilding plan as world events unfold to achieve the correct balance between expeditionary and prepositioning ships for meeting overall lift requirements.

A similar letter has been sent to Chairmen Inouye, Murtha, and Skelton. If we can be of further assistance, please let us know.

G. Roughead
Admiral, U.S. Navy
Chief of Naval Operations

James T. Conway
General, U.S. Marine Corps
Commandant of the Marine Corps

Donald C. Winter
Secretary of the Navy

Enclosure: 1. Report to Congress on Naval Amphibious Force Structure

Copy:
The Honorable John McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 7, 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

In response to the FY 2009 House Armed Services Committee Report 110-652 regarding "Naval Amphibious Force Structure," the enclosed report addresses the committee's concerns that the seabase should not be composed of non-combatant vessels such as the planned Maritime Prepositioning Force (MPF) aviation ship (MPF LHA) and the MPF landing platform ship (MPF MLP). As directed by the Congressional committees, the report provides details regarding the size and composition of the Naval Amphibious Force necessary without MPF LHA and MPF MLP vessels, to conduct operations from a seabase, with a force comprising two Marine Expeditionary Brigades (MEBs).

The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure requirement to support a 2.0 MEB lift is 38 total amphibious assault ships. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the Department of the Navy will sustain a minimum of 33 total amphibious ships in the assault echelon. This 33 ship force accepts risk in the arrival of combat support and combat service support elements of the MEB, but has been adjudged to be adequate in meeting the needs of the naval service within today's fiscal limitations.

The Department of the Navy recognizes the necessity to revisit the decisions reflected in the current shipbuilding plan as world events unfold to achieve the correct balance between expeditionary and prepositioning ships for meeting overall lift requirements.

A similar letter has been sent to Chairmen Inouye, Levin and Murtha. If we can be of further assistance, please let us know.

G. Roughead
Admiral, U.S. Navy
Chief of Naval Operations

James T. Conway
General, U.S. Marine Corps
Commandant of the Marine Corps

Donald C. Winter
Secretary of the Navy

Enclosure: 1. Report to Congress on Naval Amphibious Force Structure

The Honorable John McHugh
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 7, 2009

The Honorable Daniel Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

In response to the FY 2009 House Armed Services Committee Report 110-652 regarding "Naval Amphibious Force Structure," the enclosed report addresses the committee's concerns that the seabase should not be composed of non-combatant vessels such as the planned Maritime Prepositioning Force (MPF) aviation ship (MPF LHA) and the MPF landing platform ship (MPF MLP). As directed by the Congressional committees, the report provides details regarding the size and composition of the Naval Amphibious Force necessary without MPF LHA and MPF MLP vessels, to conduct operations from a seabase, with a force comprising two Marine Expeditionary Brigades (MEBs).

The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure requirement to support a 2.0 MEB lift is 38 total amphibious assault ships. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the Department of the Navy will sustain a minimum of 33 total amphibious ships in the assault echelon. This 33 ship force accepts risk in the arrival of combat support and combat service support elements of the MEB, but has been adjudged to be adequate in meeting the needs of the naval service within today's fiscal limitations.

The Department of the Navy recognizes the necessity to revisit the decisions reflected in the current shipbuilding plan as world events unfold to achieve the correct balance between expeditionary and prepositioning ships for meeting overall lift requirements.

A similar letter has been sent to Chairmen Levin, Murtha, and Skelton. If we can be of further assistance, please let us know.

G. Roughead
Admiral, U.S. Navy
Chief of Naval Operations

James T. Conway
General, U.S. Marine Corps
Commandant of the Marine Corps

Donald C. Winter
Secretary of the Navy

Enclosure: 1. Report to Congress on Naval Amphibious Force Structure

Copy:
The Honorable Thad Cochran
Ranking Member

REPORT TO CONGRESS

ON

NAVAL AMPHIBIOUS FORCE STRUCTURE

Prepared by:

Director, Warfare Integration (OPNAV N8F)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350-2000

December 2008

Report to Congress
On Naval Amphibious Force Structure

I. Report Requirements

The DUNCAN HUNTER NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2009, Report of the Committee on Armed Services House of Representatives Report 110-652 directs the Secretary of the Navy, along with the Chief of Naval Operations and the Commandant of the Marine Corps, submit a report within 60 days after the enactment of this Act "*on the size and composition of the naval amphibious force necessary (without the MPF LHA and MPF MLP vessels) to conduct operations from a Seabase, with a force comprising two marine expeditionary brigades (MEB).*"

II. Background

The Chief of Naval Operations (CNO) and Commandant of the Marine Corps (CMC) have determined that the requirement for shipping to support a 2.0 Marine Expeditionary Battalion (MEB) lift is 38 total amphibious assault ships. Assuming that the current operational availability for these ships is maintained over the long term, a 38 ship inventory will ensure there are at least 34 ships available at any time. This 34 ship inventory best fits the load requirements in terms of vehicle square, cargo cube, aviation deck spots and personnel necessary to support the timely offload and sustainment of a 2.0 MEB force should it be called upon to conduct amphibious operations. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the CNO and CMC have agreed to sustain an amphibious force of about 33 total amphibious ships (30 operationally available) in the assault echelon, evenly balanced with eleven aviation capable ships, eleven LPD-17 class ships and eleven LSD-41 class ships. This 33 ship force accepts risk in the arrival of combat support and combat service support elements of the MEB but has been adjudged to be adequate in meeting the needs of all parties within today's fiscal limitations.

With this basis in mind, the Navy currently has a total of 33 Assault Echelon ships in commission, which meets the standard for providing 2.0 MEBs of amphibious lift. As we move

forward, the total number of ships in the Assault Echelon will not change but the mix of ships will. In particular, in consultation with Congress, the Navy moved the two Maritime Prepositioning Force (Future) (MPF(F)) LHA(R) s in the FY09 President's Budget from the MPF(F) to the Assault Echelon to mitigate risk, increase operational flexibility, provide a more robust aviation capability within this force thus enabling the 2.0 MEBs to be sourced from both the East and West coasts. While there is great utility to the MPF(F) and its role in providing a seabase, the answer to the specific question that was asked is that loss of the LHA(R) or Mobile Landing Platform (MLP) from the current plan will not impact the Navy's or Marine Corps' ability to "*conduct operations from a Seabase, with a force comprising two marine expeditionary brigades...*" Though integral to sustaining the USMC's 2.0 MEB assault force, MPF(F) is not considered in the Assault Echelon calculus since it has been determined to provide 1.0 MEB reinforcing capacity and does not have a capability to conduct forcible entry.

The MPF(F) Family of Programs will be procured incrementally with each increment considered as a stand alone capability building up to the Full Operating Capability for the MPF(F) squadron. MLP will be included in Increment 1 which provides surface employment of combat ready forces and persistent sustaintment from the sea, which includes MLPs and MPF(F) T-AKEs. Increment 1 has been approved by USD AT&L and the acquisition activity is underway.

III. USMC Power Projection Doctrine

While the specific answer to the question asked is provided above, the question reflects a misunderstanding of Marine Corps Doctrine. While the basic building blocks of combat power are frequently expressed as a MEB, it is the Marine Expeditionary Force (MEF) around which the USMC's combat planning revolves. The MEF provides the full complement of ground and air warfighting capability together with the combat service support to sustain the force; and doctrinally, and as stipulated in Combatant Commander war plans, the Marine Corps is tasked to fight in major combat operations - which require a 3.0 MEB force. While the first two MEBs are delivered by the Assault Echelon shipping, the 3rd MEB, or reinforcing element, is provided by

the prepositioning force in what is envisioned to be the MPF(F) – with all of its vertical and surface maneuver and sustainment capabilities. Loss of any of these elements represents an unacceptable risk to the USMC and the combat power of the MEF. Therefore, without MPF(F), the USMC doctrine leads to a need for additional active amphibious shipping to deliver this 3rd MEB.

Forcible entry capability deploys in two echelons – an Assault Echelon and an Assault Follow on Echelon. The Assault Echelon achieves forcible entry and the Assault Follow on Echelon sustains that effort. In order to reduce aggregate MEF lift cost requirements, the Marine Corps envisions MPF(F) to provide 1.0 MEB of capability available to reinforce and support two MEBs from the Seabase and support the Marine Corps doctrinal 3 MEB requirement. Effective MEF level capacity is necessary to provide the full compliment of capability and longer-term sustainment requirements. Without these elements, the major combat operations could be placed in jeopardy of successful completion. Loss of the reinforcing MPF(F) MEB capability will require continued reliance on shore based reinforcement by a third MEB equivalent ship inventory mix with less overall operational speed and employment flexibility and greater operational risk.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

DEC 0 1 2008

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652 requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD (AT&L) directed that the Extended Range Munition program be terminated. On October 7, 2008, USD (AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals (JFSEOL)* Initial Capabilities Document (ICD). These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression.

The findings of the AoA are currently expected to be reviewed by USD (AT&L) in June 2009. As such, the Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 60 days of the USD (AT&L) review.

A similar letter has been sent to Chairmen Inouye, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable Duncan L. Hunter
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

DEC 0 1 2008

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652 requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD (AT&L) directed that the Extended Range Munition program be terminated. On October 7, 2008, USD (AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals (JFSEOL)* Initial Capabilities Document (ICD). These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression.

The findings of the AoA are currently expected to be reviewed by USD (AT&L) in June 2009. As such, the Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 60 days of the USD (AT&L) review.

A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

DEC 0 1 2008

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652 requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD (AT&L) directed that the Extended Range Munition program be terminated. On October 7, 2008, USD (AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals (JFSEOL)* Initial Capabilities Document (ICD). These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression.

The findings of the AoA are currently expected to be reviewed by USD (AT&L) in June 2009. As such, the Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 60 days of the USD (AT&L) review.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

DEC 0 1 2008

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652 requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD (AT&L) directed that the Extended Range Munition program be terminated. On October 7, 2008, USD (AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals (JFSEOL)* Initial Capabilities Document (ICD). These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression.

The findings of the AoA are currently expected to be reviewed by USD (AT&L) in June 2009. As such, the Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 60 days of the USD (AT&L) review.

A similar letter has been sent to Chairmen Inouye, Levin, and Skelton. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

Introduction

The following response is submitted in reference to the House of Representatives House Armed Services Committee (HASC) report 110-652 (pg. 199) directing the Secretary of the Navy (SECNAV) to submit to the congressional defense committees a report on the strategy for the continued development of Maritime Domain Awareness capability. Specifically:

> *The committee applauds the Navy for working to accelerate the deployment of a capability for achieving maritime domain awareness (MDA), which is vital for homeland protection and the projection of naval power. The committee is concerned at the lack of a clearly articulated Navy strategy for achieving both the near-term capabilities and long-range vision laid out in the "National Plan to Achieve Maritime Domain Awareness" issued by the Department of Homeland Security, in October 2005. The committee directs the Secretary of the Navy to submit to the congressional defense committees a report on his strategy for continued development of MDA capability within 180 days after the date of enactment of this Act. This strategy shall address, at minimum, the following issues:*
>
> *(1) The definitions for spirals one and two (including descriptions of the capabilities to be delivered and the funding needed for these capabilities) and how are they linked to the "National Plan to Achieve Maritime Domain Awareness;"*
>
> *(2) Capabilities planned for inclusion in future spirals for MDA;*
>
> *(3) A certification that current and future spirals will integrate into the enterprise Naval Networking Environment, as well as proposed future iterations;*
>
> *(4) An explanation of how technologies being developed in the science and technology community spin into future MDA spirals;*
>
> *(5) Supporting capabilities being provided by international or interagency partners (including funding levels), and a description of how these capabilities will be integrated into current and future spirals; and*
>
> *(6) The governance structure for determining program management oversight. Elsewhere in this title, the committee recommends the budget requested funding levels for the procurement and research and development programs necessary for development of MDA capability.*

Report

The following responses address elements required by House Report 110-652 regarding the Navy's Maritime Domain Awareness capability:

Strategy for Continued Development of MDA Capability

The Secretary of the Navy (SECNAV) and the Chief of Naval Operations (CNO) fully support and are committed to achieving the national Maritime Domain Awareness (MDA) goals and objectives as outlined in *National Security Presidential Directive-41/Homeland Security Presidential Directive-13* (NSPD-41/HSPD-13), the *National Strategy for Maritime Security* (NSMS), the supporting *National Plan to Achieve Maritime Domain Awareness* (NPAMDA), and its derivative, the *National Concept of Operations for Maritime Domain Awareness* (National MDA CONOPS).

Our strategy is based on the establishment of a collaborative environment to improve the sharing of data, information and analyses among a broad range of interagency, international, state, local, tribal and private partners, with the goal of enhancing our effective understanding of the maritime domain and thereby enabling decision superiority and the full range of military operations (ROMO).

Execution of this strategy requires a balance between finding ways to provide enhanced effective understanding in the near-term, with systems and technologies that most likely will lack sufficient interoperability over the long-term, while moving toward the alignment on technical standards that will facilitate the level of interoperability envisioned in the National MDA documents. Finding this balance between near and long-term needs is a difficult task requiring exceptional coordination and collaboration, within the Department of the Navy (DON), across the Department of Defense (DOD), and with other MDA partners: interagency, international, state, local and private. This level of interoperability will assist in the identification of threats to the security, safety, economy and environment of the United States and in maintaining global freedom of the seas and open Sea Lines of Communication.

Maritime Domain Awareness supports the key national security goals of engaging allies in meeting common security challenges, developing new capabilities to aggressively defeat terrorists, preparing to meet 21st Century threats, strengthening interdiction efforts, and improving information sharing and analysis.

The Navy intends to continue to develop and field MDA capability to the fleet in the near to mid term (through 2014), using the Joint Capabilities and Integration Development System (JCIDS) process. The Navy conducted an MDA Capabilities Based Analysis in 2008, with results reported to the Navy Resources and Requirements Review Board (R3B) in January 2009. The R3B made the following decisions with respect to future development of MDA capability:

(a) Approved the development of an MDA Fusion and Analysis Initial Capabilities Document (ICD) to include consideration of joint, interagency, and international partners.
(b) Approved the development of a broader MDA ICD to address the overall end-to-end capability including Navy, joint, interagency, and international partners. All ICD and Doctrine, Organization, Training, Leadership & Education, Personnel, Facilities (DOTLPF) Change Recommendations (DCRs) will identify how newly proposed material solutions are integrated with existing capabilities and programs of record.

Additionally, the Navy is participating in the US Northern Command/US Pacific Command-led Joint Integrating Concept (JIC) writing effort, to define long-term DOD MDA requirements (beyond 2014) which will enable DOD to make the correct investments in MDA going forward.

Further, the Navy will participate in interagency efforts as the implementation of the Interagency Investment Strategy and its successor documents is incorporated into national plans.

(1) Definitions, Description and Funding Required for Spirals One and Two and Linkage to the "National Plan to Achieve Maritime Domain Awareness"

In May 2007 SECNAV stated that "the Department of the Navy is well-positioned to begin fielding an enduring, operational MDA capability". Accordingly, SECNAV directed DUSN and Deputy Chief of Naval Operations for Communications Networks (OPNAV N6) to "move expeditiously in fielding a prototype MDA capability," by August 2008. That effort has resulted in the development and fielding of an initial Navy MDA operational capability termed MDA Spiral 1.

Spiral 1 focused on accelerated fielding of advanced technological capabilities that would improve our ability to monitor vessels, cargo, people and infrastructure. Spiral 1 consists of nine technologies: Comprehensive Maritime Awareness, Google Earth, Global Trader, Law Enforcement Information Exchange Network (LInX), Maritime Awareness Global Network (MAGNET), Port Surveillance System, Tactical Expanded Maritime Interception Operation (EMIO) System, Tripwire Analytic Capability (TAC), Palaemon, and Non-Classified Enclave (NCE). These technologies leverage classified, unclassified and non-classified data and information. Features include enhanced, automated data collection, multi-source vessel tracking, data fusion, anomaly detection, and information dissemination and collaboration tools. These capabilities have evolved from and/or currently reside in existing Programs of Record and Joint Concept Technology Demonstrations with proven technology maturity.

Navy MDA efforts have also included upgrades to enhance capabilities in the top-secret, secret, unclassified and non-classified domains; such as installation of data servers to host increasing volumes of data, improved geospatial displays, tailored collaboration tools and technologies to enable increased interoperability of participating organizations.

The funding (Intel & Non-Intel) required for these capabilities included:

MDA Spiral 1	FY07	FY08	FY09
Intel	10.8	56.5	46.3
Non-Intel	19.2	88.8	58.0
Total	30.0	145.2	104.3

Fiscal Year 2009 funding is being utilized to sustain the Spiral 1 capability, correct deficiencies noted in the Quick Reaction Assessment, and further integrate data and alerting amongst Spiral 1 systems and extend elements of Spiral 1 to support Fleet Commanders, both U.S. Coast Guard Maritime Intelligence Fusion Centers, both Joint Interagency Task Force commands, and the

National Maritime Intelligence Center. In 2009, the MDA Spiral 1 architecture will provide an initial capability for fusion and analysis of an expansive maritime data set.

(2) Capabilities Planned for Inclusion in Future MDA Spirals

Future spiral development is being defined and funding has not been identified nor programmed in the Program Objective Memorandum (POM). In order to achieve the balance between near and long term requirements with the least amount of risk, the DON has embarked on an analysis process that will provide critical data on required capabilities and corresponding gaps that will inform investment decisions for the next increment of MDA capability. While executing this analysis and formal requirements development process, the Navy will continue to sustain the appropriate capabilities from Spiral 1 that are enhancing Maritime Domain Awareness.

While some Spiral 1 technologies will form the foundation of future development, we will use lessons learned from Spiral 1 and feedback from the current user community to evaluate and make improvements to the current operational capability set and/or delivery of precursor technologies to future MDA capabilities. The ongoing Capabilities Based Assessment (CBA) is looking at Navy MDA-related fusion and analysis. Based on an SSG held in December 2008, and an OPNAV Resource, Requirements Review Board (R3B) of the CBA's work, Spiral 1 will be sustained, with future spiral development to be informed by current fusion and analysis CBA results, supplemented by additional CBA work to look at the full spectrum of information sharing.

The DON is in the process of conducting the follow-on information sharing analysis. Under the sponsorship of Director, Navy MDA Office, the CBA will perform a more comprehensive assessment of MDA, leveraging the fusion and analysis work, to look at our capability to access and disseminate data, information and analysis. This work will look beyond Navy and DOD MDA-related capabilities, to those of our interagency and international partners. The CBA results will provide the requirements analysis necessary to support acquisition decisions of MDA-related programs of record in the formalized Two-Pass/Six-Gate process.

The two complementary assessments, of past successes and future efforts, will help define future architecture and determine the way ahead for Navy MDA. However, even as the process is underway to establish programs of record, the DON cannot stand still. Where analysis is clear, the DON will need to continue to press forward and expeditiously meet fleet emergent critical requirements that have been validated. It will, therefore, be critical not just to have funds to sustain fielded technologies, like Spiral 1, but also to have the flexibility necessary to realign funds available such that when critical precursor technologies are identified, we can conduct the required development and limited fielding in preparation of final CBA findings.

It is imperative that we get MDA requirements and resourcing correct within the DON, while also ensuring alignment with DOD and other national MDA policies, guidance and efforts. Resource planning will conform to the institutionalized Planning, Programming, Budgeting and Execution (PPBE) processes and SECNAVINST 5000.2D, Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System (JCIDS).

(3) Certification of Integration of Current and Future Spirals into the Enterprise Naval Networking Environment

The Department of the Navy Chief Information Officer (DONCIO) and OPNAV N6 are working together to direct the Naval Networking Environment (NNE) and both organizations are integral parts of the Navy MDA governance structure laid out in SECNAV Instruction 3052.1. Commander Operational Test and Evaluation Force (COTF), in conjunction with Joint Interoperability Test Command (JITC), will ensure Navy's interoperability compliance with CJCSI 6212.01 through the Joint interoperability certification process. These relationships will ensure that the Navy MDA information sharing effort and NNE have effective interoperability.

National documents contemplate interoperability, not only within agencies, but across the interagency, with international, state, local and private partners of the Global Maritime Community of Interest (GMCOI). MDA will not be achievable without effective information sharing with these partners. Achieving this level of interoperability depends upon effective coordination at the DOD and interagency levels and coordination that also facilitates greater interoperability with international and private partners.

MDA Spiral 1 has focused on improving data interoperability. Navy has implemented the instantiation of the Maritime Information Exchange Model (MIEM) in several of the development efforts. The Office of the DOD EA for MDA has entered into a Memorandum of Agreement with the Department of Homeland Security to cooperatively extend the National Information Exchange Model to include all the required elements of the MIEM; this effort will enable interoperability across a vast set of MDA partners. This activity is fundamental to realizing data and organizational interoperability. Navy's current MDA capability set accesses both classified and non-classified data and information, as well as leveraging tools from interagency and international partners. For example, technology within Spiral 1 uses data and information such as ship's automated information system data from several databases and stitches it together to create a more accurate vessel position and track. Some of the systems that currently exchange data with Spiral 1 are MAGnet, a United States Coast Guard fusion and analysis tool; and Maritime Automated Super Track Enhanced Reporting (MASTER), an Office of the Secretary of Defense sponsored JCTD that provides enhanced ship tracking capability. Most of this exchange incurs no funding requirement as partners agree to share information and tools without compensation in order to enhance the data set for all awareness systems and users involved.

Finally, DON, in keeping with the recommendation in the National MDA CONOPS is the lead agency for the development of the information sharing architecture. The DONCIO, in accordance with SECNAV Inst. 3052.1, has been delegated this responsibility. As the National MDA Architecture Hub lead, the DON has initiated an enterprise architecture effort to capture national operational, technical and system views. These enterprise architecture artifacts will evolve and continue to inform investment and engineering decisions. Ultimately, in accordance with national guidance, the architecture is intended to support interoperability not only within DON, DOD and the interagency, but with international, state, local and private corporate partners as well.

(4) Explanation of How Technologies Under Development in the Science And Technology Community Spin into Future MDA Spirals

Science and Technology has been a tremendous contributor to Navy MDA efforts. A significant foundation for the Spiral 1 capability set was provided by OSD sponsored JCTD's and Navy Rapid Deployment Capabilities. The Comprehensive Maritime Awareness (CMA) JCTD is a cornerstone of the Spiral 1 fusion and analysis capability. Though not specifically a Spiral 1 technology, MASTER, another JCTD sponsored by OSD has evolved as a critical sister capability to CMA. MASTER will be transitioned to a program of record and CMA is being assessed for transition or sustainment as a program of record as that capability evolves to the next increment.

In SECNAV Instruction 3052.1, SECNAV directed the Assistant Secretary of the Navy, Research, Development and Acquisition (ASN (RDA)), to develop and maintain a plan for a strong, sustained MDA S&T/Research and Development (R&D) base to establish a transition process to inject innovative capabilities into acquisition and operations. In addition, the instruction directs the Chief of Naval Research (CNR) to develop S&T roadmaps for inclusion in the annual Navy MDA Plan. The technologies will be continuously evaluated for maturity and military utility for inject into current and future MDA-related programs in the S&T community.

(5) Supporting Capabilities of International or Interagency Partners

International and interagency partner capabilities and Navy MDA efforts are mutually supporting.

Internationally, over 55 nations now participate in the Maritime Safety and Security Information System (MSSIS), through the open sharing of non-classified Automated Information System (AIS) data globally. Created by the US Department of Transportation, MSSIS exchanges AIS data in real time between international and domestic users through an internet-based, password-protected exchange portal. MSSIS serves as the data feed and basis for a number of applications.

Through the use of Congressionally-provided Section 1206 funding, over 150 million has been expended or obligated for partner nation maritime security efforts. These efforts directly contribute to global maritime domain awareness and are strongly supported by the regional Combatant Commanders.

Additionally, NATO is moving forward with Maritime Security Awareness (MSA) initiatives, which are complementary to the Navy's efforts.

Interagency efforts are linked through the Maritime Security Interagency Policy Committee (MSIPC) and the governance structure outlined below. Implementation of the National Plan to Achieve Maritime Domain Awareness (NPAMDA) requires close interagency collaboration. The Department of Homeland Security (DHS) and the Department of Transportation (DOT) have tools which are integrated into MDA Spiral 1 systems currently operating in the fleet.

Navy is fully committed to aligning its efforts with our international and interagency partners to ensure the successful achievement of MDA.

(6) Governance Structure for Program Management Oversight

The Secretary of the Navy was designated as the Department of Defense Executive Agent for Maritime Domain Awareness by the Deputy Secretary of Defense in a memorandum dated August 3, 2007. DOD Directive 2005.02E of August 27, 2008 provides direction on how to achieve Maritime Domain Awareness within the DOD. The DOD Maritime Domain Awareness Senior Advisory Group, comprised of representatives from various offices within the Office of the Secretary of Defense as well as the Joint Staff and the Services is charged with promoting unity of effort, standardization and appropriate access to information critical to operationalize MDA.

In March 2008, the CNO designated the Deputy Chief of Naval Operations for Operations, Plans and Strategy (N3/N5), as lead for MDA within the Chief of Naval Operations Staff (OPNAV). Subsequently, in December 2008, CNO approved the stand-up of the Navy MDA Office, to synchronize and align Navy MDA activities and ensure they were aligned with DOD and national MDA goals and objectives. This action was formally promulgated by naval message in March 2009 (NAVADMIN 080/90). The Director, a two-star admiral, reports directly to the Deputy Chief of Naval Operations for Operations, Plans and Strategy (N3/N5).

In January 2009, SECNAV Instruction 3052.1, Maritime Domain Awareness in the Department of the Navy, was signed and promulgated. The instruction assigns responsibilities and establishes the authorities and governance structure necessary to develop and implement comprehensive, integrated Department of the Navy MDA activities. It also delineates how SECNAV, the CNO and the Commandant of the Marine Corps (CMC) will provide policy, guidance and oversight for the implementation of MDA within the DON.

Executive level guidance and oversight for DON is assigned to a three-star and equivalent level Senior Steering Group (SSG). The SSG is co-chaired by the Deputy Under Secretary of the Navy (DUSN) and N3/N5. The instruction also established a one to two-star level MDA Oversight Group (MOG) for implementation of MDA within DON. The Director, Navy MDA Office, is chair of the MOG.

Coordination of United States Government efforts on MDA takes place within the National Security Council at the Maritime Security Interagency Policy Committee. That committee is supported by an Interagency Stakeholders Board (SHB) and Executive Steering Committee (ESC). The ESC, with the Directors of the Offices of Global Maritime and Air Intelligence Integration and Global Maritime Situational Awareness, as well as the MDA Executive Agents from the Department of Defense, Department of Homeland Security and Department of Transportation, acts as the principal interagency decision making body for MDA, decides on courses of action for all recommendations put forth to the full Board, and establishes and reviews progress of sub-committees.

Conclusion

The Department of the Navy appreciates this opportunity to provide information on our MDA strategy. We look forward to continued communication with the Congressional Defense Committees on where we are, and will be headed with the development and deployment of MDA capabilities. The DON will continue to improve these MDA capabilities through sound business decisions based on thorough analysis of the operational requirements; both material and non-material. Our renewed governance structure that provides senior oversight and ensures a cooperative and collaborative planning and execution environment is focused on delivering a balanced program that meets the needs of the Navy MDA user audience and is aligned to achieve national MDA objectives.

DEPARTMENT OF THE NAVY
OFFICE OF THE DEPUTY UNDER SECRETARY OF THE NAVY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

ACTION MEMO

April 13, 2009

FOR: SECRETARY OF THE NAVY

FROM: Mr. Bruce Stubbs, Deputy Under Secretary of the Navy (Acting)

SUBJECT: Report to Congress – Maritime Domain Awareness (MDA)

- Mr. Secretary, request you sign TAB A and forward with TAB B to the Chairmen of the Appropriations and Defense Committees.
- Submission directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652 Page 199. The due date for this report is no later than 21 April 2009.
- The Report to Congress discusses the fielding of Navy MDA tools to the fleet, the governance structure in place for Navy MDA, and MDA technology development.

RECOMMENDATION: SECNAV sign TAB A and forward with TAB B to the Chairmen of the Appropriations and Defense Committees.

COORDINATION: TAB C

ATTACHMENTS:
As stated

Prepared By: Mr. Marty Simon, DUSN MDA Analyst, (703) 695-4179

SAAM
RELEASE
4/15/09

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization House Committee Report (110-652) requires the Secretary of the Navy to submit a report to the Congressional Defense Committees that addresses the strategy for the continued development of Maritime Domain Awareness capability.

The Navy fielded a set of Maritime Domain Awareness tools for fleet use in 2008, commonly referred to as "Spiral 1", to provide an initial capability towards meeting the goals of the *National Plan to Achieve Maritime Domain Awareness*. These tools are currently under evaluation as the Navy proceeds with internal studies that will inform future investments in Maritime Domain Awareness capability in support of national objectives.

A robust governance structure is in place to support Navy efforts in leveraging new and existing technologies, and implementing non-material solutions (doctrine, organization, training, leadership, personnel, and facilities) in support of Navy, national, and international Maritime Domain Awareness initiatives.

A similar letter has been sent to Chairmen Skelton, Murtha, Levin, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2009

The Honorable Daniel K. Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization House Committee Report (110-652) requires the Secretary of the Navy to submit a report to the Congressional Defense Committees that addresses the strategy for the continued development of Maritime Domain Awareness capability.

The Navy fielded a set of Maritime Domain Awareness tools for fleet use in 2008, commonly referred to as "Spiral 1", to provide an initial capability towards meeting the goals of the *National Plan to Achieve Maritime Domain Awareness*. These tools are currently under evaluation as the Navy proceeds with internal studies that will inform future investments in Maritime Domain Awareness capability in support of national objectives.

A robust governance structure is in place to support Navy efforts in leveraging new and existing technologies, and implementing non-material solutions (doctrine, organization, training, leadership, personnel, and facilities) in support of Navy, national, and international Maritime Domain Awareness initiatives.

A similar letter has been sent to Chairmen Skelton, Murtha, Levin, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization House Committee Report (110-652) requires the Secretary of the Navy to submit a report to the Congressional Defense Committees that addresses the strategy for the continued development of Maritime Domain Awareness capability.

The Navy fielded a set of Maritime Domain Awareness tools for fleet use in 2008, commonly referred to as "Spiral 1", to provide an initial capability towards meeting the goals of the *National Plan to Achieve Maritime Domain Awareness*. These tools are currently under evaluation as the Navy proceeds with internal studies that will inform future investments in Maritime Domain Awareness capability in support of national objectives.

A robust governance structure is in place to support Navy efforts in leveraging new and existing technologies, and implementing non-material solutions (doctrine, organization, training, leadership, personnel, and facilities) in support of Navy, national, and international Maritime Domain Awareness initiatives.

A similar letter has been sent to Chairmen Skelton, Murtha, Inouye, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2009

The Honorable David Obey
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization House Committee Report (110-652) requires the Secretary of the Navy to submit a report to the Congressional Defense Committees that addresses the strategy for the continued development of Maritime Domain Awareness capability.

The Navy fielded a set of Maritime Domain Awareness tools for fleet use in 2008, commonly referred to as "Spiral 1", to provide an initial capability towards meeting the goals of the *National Plan to Achieve Maritime Domain Awareness*. These tools are currently under evaluation as the Navy proceeds with internal studies that will inform future investments in Maritime Domain Awareness capability in support of national objectives.

A robust governance structure is in place to support Navy efforts in leveraging new and existing technologies, and implementing non-material solutions (doctrine, organization, training, leadership, personnel, and facilities) in support of Navy, national, and international Maritime Domain Awareness initiatives.

A similar letter has been sent to Chairmen Skelton, Murtha, Levin, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization House Committee Report (110-652) requires the Secretary of the Navy to submit a report to the Congressional Defense Committees that addresses the strategy for the continued development of Maritime Domain Awareness capability.

The Navy fielded a set of Maritime Domain Awareness tools for fleet use in 2008, commonly referred to as "Spiral 1", to provide an initial capability towards meeting the goals of the *National Plan to Achieve Maritime Domain Awareness*. These tools are currently under evaluation as the Navy proceeds with internal studies that will inform future investments in Maritime Domain Awareness capability in support of national objectives.

A robust governance structure is in place to support Navy efforts in leveraging new and existing technologies, and implementing non-material solutions (doctrine, organization, training, leadership, personnel, and facilities) in support of Navy, national, and international Maritime Domain Awareness initiatives.

A similar letter has been sent to Chairmen Skelton, Levin, Inouye, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

April 15, 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization House Committee Report (110-652) requires the Secretary of the Navy to submit a report to the Congressional Defense Committees that addresses the strategy for the continued development of Maritime Domain Awareness capability.

The Navy fielded a set of Maritime Domain Awareness tools for fleet use in 2008, commonly referred to as "Spiral 1", to provide an initial capability towards meeting the goals of the *National Plan to Achieve Maritime Domain Awareness*. These tools are currently under evaluation as the Navy proceeds with internal studies that will inform future investments in Maritime Domain Awareness capability in support of national objectives.

A robust governance structure is in place to support Navy efforts in leveraging new and existing technologies, and implementing non-material solutions (doctrine, organization, training, leadership, personnel, and facilities) in support of Navy, national, and international Maritime Domain Awareness initiatives.

A similar letter has been sent to Chairmen Levin, Murtha, Inouye, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Member

COORDINATION PAGE

Point of Contact/Title	Phone	Date
Lt Brandon Hamilton/OLA	703-695-6036	01 APR 09
CDR Bob Hein/USFF N33	757-236-6786	30 MAR 09
Mr Jim Scruggs/USFF N3JOD	757-236-5502	30 MAR 09
CDR Mark Holloway/N3/5	703-692-3220	01 APR 09
CDR David Porcaro/N801	703-692-5430	31 MAR 09
Dr. Federici/DASN(C4I)	703-614-6619	02 APR 09
CAPT David Coughlin/N6F4	703-601-1280	03 APR 09
Ms Suzanne J Gonzales/DNS-6	703-614-8450	06 APR 09
Mr. Bruce Stubbs/DUSN	703-614-7038	10 APR 09
RADM M.H. Miller/CLA	703-697-7146	13 APR 09
CAPT Tom McGovern/FMBE	703-692-9824	14 APR 09
CDR Bailey/SAL	703-697-6935	14 APR 09

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

ACTION MEMO

IN REPLY REFER TO

April 1, 2009

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations 4/7/09

SUBJECT: Report to Congress – Helicopter Force Structure and Requirements

- Mr. Secretary, request you sign TAB A and forward with TAB B to the Chairmen of the Appropriations and Defense Committees.
- Submission directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652 Page 69. The due date for this report is no later than 09 April 2009.
- The Report to Congress references a Vertical Heavy Lift (VHL) Concept of Operations and a supplemental analysis conducted by the Director, Air Warfare (N88) on the potential benefits of a new Type/Model/Series helicopter.
- U.S. Fleet Forces Command determined that proposed heavy lift mitigators will likely not meet the Fleet's heavy-over sized material lift requirements and therefore recommends that OPNAV continue the VHL mission by pursuing a replacement for the MH-53E.
- N88 analysis concluded that the benefits of a new helicopter larger than the H-60 fell primarily within Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles. Greatest Fleet benefit would thus come from procuring a helicopter that is as or more capable than the MH-53E.
- With the first of the MH-53E fleet reaching the end of its service life in 2020, a POM 14 decision (at the earliest) would provide sufficient time to address projected capability gaps.

RECOMMENDATION: SECNAV sign TAB A and forward with TAB B to the Chairmen of the Appropriations and Defense Committees.

COORDINATION: TAB D

9 APR 09
RELEASE
4/6/09

ATTACHMENTS:
As stated

Prepared By: CAPT David T. Fisher, N882C, (703) 695-1730

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

April 9, 2009

The Honorable David Obey
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

In response to the Fiscal Year 2009 House Armed Services Committee Report 110-652, Page 69, the enclosed unclassified report provides information regarding the future of Navy Heavy Lift and the associated potential benefits of a new Type/Model/Series (T/M/S) helicopter larger than the H-60.

United States Fleet Forces Command has determined that proposed heavy lift mitigators addressed in their Vertical Heavy Lift (VHL) Concept of Operations will likely not meet the Fleet's heavy/over-sized material lift requirements and therefore recommends that Chief of Naval Operations continue the VHL mission by pursuing a replacement for the MH-53E.

The Chief of Naval Operations' Staff's supplemental analysis concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60, primarily in the Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles, and that the greatest Fleet benefit would come from procuring a helicopter that is as capable as the MH-53E or better. The MH-60S, today, and even more so as its full capabilities mature, represents the best organic solution for the mission areas evaluated. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow-on), does not represent a judicious allocation of resources. With the first of the MH-53E fleet reaching the end of its service life in 2020, Fiscal Year 2014 decisions (at the earliest) will provide sufficient time to address projected capability gaps.

A similar letter has been sent to Chairmen Skelton, Murtha, Levin, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

April 9, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

In response to the Fiscal Year 2009 House Armed Services Committee Report 110-652, Page 69, the enclosed unclassified report provides information regarding the future of Navy Heavy Lift and the associated potential benefits of a new Type/Model/Series (T/M/S) helicopter larger than the H-60.

United States Fleet Forces Command has determined that proposed heavy lift mitigators addressed in their Vertical Heavy Lift (VHL) Concept of Operations will likely not meet the Fleet's heavy/over-sized material lift requirements and therefore recommends that Chief of Naval Operations continue the VHL mission by pursuing a replacement for the MH-53E.

The Chief of Naval Operations' Staff's supplemental analysis concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60, primarily in the Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles, and that the greatest Fleet benefit would come from procuring a helicopter that is as capable as the MH-53E or better. The MH-60S, today, and even more so as its full capabilities mature, represents the best organic solution for the mission areas evaluated. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow-on), does not represent a judicious allocation of resources. With the first of the MH-53E fleet reaching the end of its service life in 2020, Fiscal Year 2014 decisions (at the earliest) will provide sufficient time to address projected capability gaps.

A similar letter has been sent to Chairmen Obey, Murtha, Levin, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

April 9, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In response to the Fiscal Year 2009 House Armed Services Committee Report 110-652, Page 69, the enclosed unclassified report provides information regarding the future of Navy Heavy Lift and the associated potential benefits of a new Type/Model/Series (T/M/S) helicopter larger than the H-60.

United States Fleet Forces Command has determined that proposed heavy lift mitigators addressed in their Vertical Heavy Lift (VHL) Concept of Operations will likely not meet the Fleet's heavy/over-sized material lift requirements and therefore recommends that Chief of Naval Operations continue the VHL mission by pursuing a replacement for the MH-53E.

The Chief of Naval Operations' Staff's supplemental analysis concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60, primarily in the Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles, and that the greatest Fleet benefit would come from procuring a helicopter that is as capable as the MH-53E or better. The MH-60S, today, and even more so as its full capabilities mature, represents the best organic solution for the mission areas evaluated. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow-on), does not represent a judicious allocation of resources. With the first of the MH-53E fleet reaching the end of its service life in 2020, Fiscal Year 2014 decisions (at the earliest) will provide sufficient time to address projected capability gaps.

A similar letter has been sent to Chairmen Skelton, Obey, Levin, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

April 9, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In response to the Fiscal Year 2009 House Armed Services Committee Report 110-652, Page 69, the enclosed unclassified report provides information regarding the future of Navy Heavy Lift and the associated potential benefits of a new Type/Model/Series (T/M/S) helicopter larger than the H-60.

United States Fleet Forces Command has determined that proposed heavy lift mitigators addressed in their Vertical Heavy Lift (VHL) Concept of Operations will likely not meet the Fleet's heavy/over-sized material lift requirements and therefore recommends that Chief of Naval Operations continue the VHL mission by pursuing a replacement for the MH-53E.

The Chief of Naval Operations' Staff's supplemental analysis concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60, primarily in the Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles, and that the greatest Fleet benefit would come from procuring a helicopter that is as capable as the MH-53E or better. The MH-60S, today, and even more so as its full capabilities mature, represents the best organic solution for the mission areas evaluated. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow-on), does not represent a judicious allocation of resources. With the first of the MH-53E fleet reaching the end of its service life in 2020, Fiscal Year 2014 decisions (at the earliest) will provide sufficient time to address projected capability gaps.

A similar letter has been sent to Chairmen Skelton, Murtha, Obey, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

April 9, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In response to the Fiscal Year 2009 House Armed Services Committee Report 110-652, Page 69, the enclosed unclassified report provides information regarding the future of Navy Heavy Lift and the associated potential benefits of a new Type/Model/Series (T/M/S) helicopter larger than the H-60.

United States Fleet Forces Command has determined that proposed heavy lift mitigators addressed in their Vertical Heavy Lift (VHL) Concept of Operations will likely not meet the Fleet's heavy/over-sized material lift requirements and therefore recommends that Chief of Naval Operations continue the VHL mission by pursuing a replacement for the MH-53E.

The Chief of Naval Operations' Staff's supplemental analysis concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60, primarily in the Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles, and that the greatest Fleet benefit would come from procuring a helicopter that is as capable as the MH-53E or better. The MH-60S, today, and even more so as its full capabilities mature, represents the best organic solution for the mission areas evaluated. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow-on), does not represent a judicious allocation of resources. With the first of the MH-53E fleet reaching the end of its service life in 2020, Fiscal Year 2014 decisions (at the earliest) will provide sufficient time to address projected capability gaps.

A similar letter has been sent to Chairmen Skelton, Murtha, Levin, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

April 9, 2009

The Honorable Daniel K. Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

In response to the Fiscal Year 2009 House Armed Services Committee Report 110-652, Page 69, the enclosed unclassified report provides information regarding the future of Navy Heavy Lift and the associated potential benefits of a new Type/Model/Series (T/M/S) helicopter larger than the H-60.

United States Fleet Forces Command has determined that proposed heavy lift mitigators addressed in their Vertical Heavy Lift (VHL) Concept of Operations will likely not meet the Fleet's heavy/over-sized material lift requirements and therefore recommends that Chief of Naval Operations continue the VHL mission by pursuing a replacement for the MH-53E.

The Chief of Naval Operations' Staff's supplemental analysis concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60, primarily in the Vertical Onboard Delivery and Humanitarian Assistance/Disaster Relief roles, and that the greatest Fleet benefit would come from procuring a helicopter that is as capable as the MH-53E or better. The MH-60S, today, and even more so as its full capabilities mature, represents the best organic solution for the mission areas evaluated. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow-on), does not represent a judicious allocation of resources. With the first of the MH-53E fleet reaching the end of its service life in 2020, Fiscal Year 2014 decisions (at the earliest) will provide sufficient time to address projected capability gaps.

A similar letter has been sent to Chairmen Skelton, Murtha, Levin, and Obey. If I can be of any further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

COORDINATION PAGE

Office/Dept	Point of Contact/Title	Phone	Date
N3 N5	CAPT Brett Calkins	703-571-2907	06 Mar 09
N801	LCDR Gregory Thoroman	703-614-9880	06 Mar 09
ASN RDA	Mr. Joe Marquis	703-693-0896	09 Mar 09
NAVAIR	CAPT Rick Muldoon Mr. Ken Caniglia	310-757-5780 310-757-5407	11 Mar 09
OLA	CDR Dell Bull	703-695-4153	12 Mar 09
FMBE	CDR Chad Jungbluth	703-693-1432	12 Mar 09
N86	CDR Shawn Malone	703-604-7603	16 Mar 09
USFF	RADM Kenneth Deutsch	757-836-3540	16 Mar 09
N882C/C3	CAPT David Fisher	703 695-1730	18 Mar 09
N882	RDML(s) Terry Kraft	703 614-4934	18 Mar 09
N88	RDML David Philman	703 695-9681	18 Mar 09
N8F	RADM Allen Myers	703 614-2162	01 Apr 09
N8	VADM Barry McCullough	703 692-8994	02 Apr 09
OLA	RADM Mike Miller	703-697-7146	03 Apr 09
FMBE	CAPT Tom Carney	703-692-6735	06 Apr 09
SAL	CDR Gary Sharp	703-697-6935	06 Apr 09

Report to Congress on

Helicopter Force Structure and Requirements

PREPARED BY:
Director, Air Warfare
Chief of Naval Operations, N88
2000 Navy Pentagon, Room 5C469
Washington, DC 20350-2000
March 2009

Report on Helicopter Force Structure and Requirements

Pursuant to the Fiscal Year 2009 House Armed Services Committee Report 110-652 Page 69 Helicopter Force Structure and Requirements:

No later than April 09, 2009 the Secretary of the Navy shall submit to the congressional defense committees a report on helicopter force structure and requirements. A cornerstone of this report is the Vertical Heavy Lift (VHL) Concept of Operations (CONOPS), released by United States Fleet Forces (USFF) on August 19, 2008 and sent to Congress in December 2008. In addition to examining how the fleet could deliver Heavy Lift (HL) capabilities within the Future Years Defense Plan (to 2014) in support of Joint Seabasing/Sea Shield concepts, it also addressed medium lift requirements, as directed by the CNO in May 2008. It did not, however, address an assessment of the potential benefits of a new Type/Model/Series (T/M/S) helicopter that is larger than the H-60, as requested in congressional language. Director, Air Warfare (N88) was subsequently tasked to prepare a Report to Congress on the Navy's vertical lift requirements that will include analysis on the potential benefits of a new T/M/S helicopter that is larger than the H-60, taking into consideration such mission areas as airborne mine countermeasures, combat search and rescue, special operations, vertical onboard delivery, airborne re-supply/logistics for Seabasing, and humanitarian relief missions in addition to such factors as range, payload, time on station, manpower, and operation and maintenance costs.

Evolution of a Navy Heavy Lift Requirement:

As directed by the Fiscal Year 2009 House Armed Services Committee Report 110-652, USFF completed a **VHL CONOPS, dated August 19, 2008**. This CONOPS examined how the fleet could deliver HL capabilities within the Future Years Defense Plan (to 2014) to support Joint Seabasing/Sea Shield concepts. This report examined the possibility of utilizing other fleet logistics transfer methods to accomplish tasks now conducted around the world by the MH-53E Sea Dragon helicopter. The VHL CONOPS articulated the projected operational environment and was consistent with the Navy Helicopter Master Plan that necked down six Navy helicopter types to two newly developed advanced aircraft, the MH-60S and the MH-60R Seahawk helicopters. Although it was previously projected that the first MH-53E would reach end of service life as early as 2010, the MH-53E fleet is now undergoing an airframe Fatigue Life Extension (FLEX) program, extending this date to 2020.

As U.S. Navy helicopter types have necked down to the Seahawk variants, the Seahawk helicopters have assumed the missions of legacy aircraft. The Airborne Mine Countermeasures (AMCM) capability of the MH-53E is to be filled by the MH-60S as an integral component of the Littoral Combat Ship (LCS) Mine Countermeasures Mission Package, while the MH-53E's vertical lift delivery capability will be partially filled by the Vertical Medium Lift capability of the MH-60S. The VHL CONOPS proposes other potential means to deliver those

internal and external MH-53E loads that exceed the lift capability offered by the MH-60S helicopter (internal load of 5,500 lbs and external load of 8,000 lbs).

The **National Strategy for Maritime Security and the Cooperative Strategy for 21st Century Seapower** emphasizes the need for the United States to retain global freedom of action. Consequently, the Fleet will remain sea based, with global speed and persistent presence provided by forward deployed and surge ready forces. In order to sustain the expanding requirements of sea basing across the full spectrum of military operations, a continuous, responsive, and rapid airborne logistics capability is required. Ultimately, the right combination of speed, range, and capacity (cargo and personnel) leads to maximizing cargo/personnel transfer while minimizing customer wait time. The Fleet's current MH-53E aircraft is capable of moving 9.5 times the cube and four times the weight over more than twice the distance than the H-60.

In that the Navy currently has no programmed alternative that can completely replace the weight, cube, and range of the MH-53E, the VHL CONOPS concluded that with the retirement of the MH-53E, capability gaps would be realized within the sea base, characterized by: (1) air logistics range shortfalls greater than 150 nm; (2) overweight cargo capacity greater than 5,500 pounds per aircraft; (3) over-cube cargo capacity greater than 320 ft^3 per aircraft (the MH-60S capability without seats installed); and (4) passenger capacity greater than 12 per aircraft.

In order to support the execution of future heavy lift missions following the loss of the Navy MH-53E, the VHL CONOPS made specific recommendations that would potentially provide access to the required lift of heavy/oversize material. Specific proposals include the following:

(1) increasing onboard allowance of targeted (high-priority) oversize, over-cube materiel aboard CVNs and LHA/Ds;
(2) increasing the allowance of heavy/oversize parts at centrally located forward deployed bases and at pre-existing hubs which can be pre-staged for delivery to ships pier-side; and
(3) pursuing additional or modifications to current commercial aircraft contracts to include heavy lift options.

Other heavy lift alternatives proposed were quickly found unsuitable. In the **Commander, Naval Surface Forces Position Paper on the Vertical Heavy Lift CONOPS – DOTMLPF Action (December 11, 2008)**, the heavy Connected Replenishment (CONREP) 12,000 lb transfer capability, though technically feasible, was determined unsuitable in that neither legacy aircraft carriers (CVN), big-deck amphibious ships (LHA/D), nor Maritime Preposition Ships (MPS), with the exception of two Fast Combat Support Ships (that exist for the specific purpose of supporting the CVN 78 class ships), are expected to be retro-fitted with heavy CONREP transfer or receive capability due to cost and fit compatibility. Essentially, no ships other than the CVN 78 class have the

receive/strike down capability sized to match heavy underway replenishment delivery rates. Cruisers, destroyers, frigates, DDG-1000, and the LCS are not candidates for heavy CONREP because these ships cannot handle the larger, heavier load.

A Joint High Speed Vessel (JHSV) option was eliminated from further consideration due to at sea transfer design limitations, operational infeasibility, and slower delivery rate (as compared to VHL) findings outlined in the **Director, Air Warfare (N88) Joint Vertical Heavy Lift Requirements Identification Study (September 2007)**. Furthermore, it was considered unlikely that the Navy would modify current commercial aircraft contracts to include heavy lift options in that limited VHL commercial sources exist.

The option of increasing onboard allowances of targeted (high-priority) oversize/over-cube materiel aboard CVNs and LHA/Ds was considered by Commander, Naval Air Forces (CNAF) in a recent **CNAF Review of the Current State of Sparing on Both CVNs and LHA/LHD Platforms**. Looking into the future challenges associated with oversize sparing, it was determined that the stockpiling of oversize spares is not an effective mitigation to VHL. The limited deck area within supply spaces, Aircraft Intermediate Maintenance Department (AIMD), and hangar bays will be further reduced with future Carrier Air Wings and Air Combat Elements than those employed today. Limited space on both classes of ships will only be exacerbated as the Joint Strike Fighter (JSF) arrives in the Fleet.

The option of increasing the allowance of pre-staged heavy/oversize parts at centrally located forward deployed bases and at pre-existing hubs which could be delivered to ships pier-side was evaluated against the logistics footprint of the F-35 JSF and other critical oversize and/or overweight parts and spares. Considerably larger than the F/A-18C Hornet, the JSF brings with it a number of logistics challenges, most significant of which will be the transport of its five engine modules. Some of the engine modules are oversized, prohibiting their internal transfer with today's vertical lift platforms, as well as being impractical to transport externally over long distances. While an option, requiring ships such as the carrier to sail off station for several days to pull into port for pier-side loading of critical heavy/oversize parts would increase operational risk. In that the JSF global Logistics Support System will support three branches of the U.S. Military, as well as eight other countries, it is also infeasible to pre-stage these high-cost engine module spares worldwide. In summary limiting ships to pier-side only resupply of critical oversize or overweight parts and spares reduces operational flexibility of the force. Additionally, stockpiling large numbers of oversized spares for the exclusive use of a particular ship runs completely counter to the worldwide operations that JSF logistics must support.

USFF's Naval Strategy Information Paper (January 31, 2009) constituted a comprehensive look at the naval strategy as it relates to VHL. Having accepted that proposed heavy lift mitigation strategies (as previously discussed) will not meet the Fleet's heavy/oversize lift requirements, the report concluded that if the Navy's VHL inventory is not maintained, a capacity gap will exist in the mission of providing high-priority, high-capacity air logistics support to, from, and within the Seabase. While recognizing that current, typical logistics distances are from 100 to 400 nm, any vertical lift solution should be capable of external lift of at least 10 metric tons to a desired range of not less than 100 nm (with an optimum range of 400 nm). This proposed standard is consistent with the findings of the Joint Requirements Oversight Council validated Airborne Resupply/Logistics for Seabasing (AR/LSB) Initial Capabilities Document (ICD), completed in December 2004, which stated that an Expeditionary Strike Force will require airborne re-supply equivalent to what is provided to today's Fleet and potentially more. Furthermore, the solution must be capable of providing lift in the unique maritime operations environment that includes: all types of flying weather, day and night, from shore airfields to underway or anchored air-capable naval ships deployed to joint operating areas around the world.

Resolving this capability gap would ensure continued support to regional combatant commanders in the Global War on Terrorism (GWOT), the Combatant Commanders' Theater Security Cooperation Plans, Combat Search and Rescue (CSAR), Special Operations (SPECOPS), Maritime Homeland Defense, Humanitarian Assistance / Disaster Relief (HA/DR), Medical Evacuation (MEDEVAC), and a range of existing and emerging operational concepts. Such a VHL capability would allow afloat joint forces to expand on-station time, thereby sustaining operational battle rhythm and maintaining operational momentum. USFF subsequently recommended that OPNAV continue the VHL mission by pursuing an MH-53E replacement.

Assessment of the Potential Benefits of a New Type/Model/Series Helicopter That Is Larger Than the H-60:

When addressing the benefits of a new T/M/S helicopter that is larger than the H-60, various available or in-development industry platforms were compared to the MH-60S. During the comparative study, when a platform was determined to be incapable of operating in the MH-60S unique maritime operations environment (due to excessive size, excessive max gross weight, configuration incompatibility, etc.) it was highlighted as less capable than the MH-60S. The following mission areas were considered: AMCM, CSAR, SPECOPS, Vertical Onboard Delivery (VOD), vertical replenishment (VERTREP), and HA/DR. Like the AR/LSB Analysis of Alternatives (04 Oct 2006), the boundary condition for this review included mission effectiveness, performance, reliability, safety, supportability, interoperability, and affordability.

Examination of the various industry platforms highlighted both the benefits and limitations of helicopters larger than the MH-60S in the following mission areas:

- AMCM: Other platforms can offer 2.3 to 3 times the MH-60S operational time on station and a much simplified and more reliable mission configuration capability. However, all the evaluated platforms are incompatible with the LCS, making them unsuitable in the organic AMCM role.

- CSAR and SPECOPS: Having up to 2 times the MH-60S range, 2.5 to 4 times the seating capacity, and 4 to 6 times the litter capacity, these larger platforms offer increased flexibility to the Fleet. However, the evaluated platforms again were either marginally compatible or incompatible with LCS and Cruiser-Destroyer (CRUDES) ships. To perform these missions, the larger lift platforms would require operations from CVN and Amphibious ships, which are already constrained by challenging deck-space issues.

- VOD: With 3 to 4 times the internal lift capacity and 1.5 to 4 times the external capacity out to 2 times the range, the larger platforms offer a clear advantage. Naturally, a much larger platform than the MH-60S is required if the Navy desires the capability to deliver over-weight/oversize loads to its at-sea forces. Moreover, an aircraft as large or larger than the MH-53E (69,750 lb gross weight) is required to internally lift such loads as aircraft engines (F404 and F414), JSF engine fan and nozzle modules, 463L pallets, C-2 vertical stabilizers, H-53E rotor blades and swashplates, and catapult spares. In support of HA/DR and Construction Battalion missions (requiring D5B dozers, Loaders, MK-14 trailers, 600 gallon water purifiers, 2.5 ton cargo trucks, etc.) and Naval Special Warfare missions (requiring 11m RHIBs with trailer, 35 ft Riverine Assault Craft, etc.) an aircraft with the external load capacity of the MH-53E is essential.

- VERTREP: The shorter range, ship-to-ship VERTREP mission is not benefitted by a larger platform, and in fact would be less effective largely due to shipboard incompatibility issues. By design, rarely does a supply ship load exceed the capacity of the MH-60S.

- HA/DR: As demonstrated by the impact of the MH-53E during recent earthquake, hurricane, and tsunami relief operations, the increased range, lift, and seating capacity of the MH-53E lends it to meeting the lift requirements associated with heavy/bulky loads of essential items and heavy equipment. Typically, this material originates on the CVN/Amphibious platforms, negating helicopter-ship compatibility concerns.

Due to the size and weight constraints of the MH-60S airframe (small and light enough to operate on CRUDES class ships and both LCS designs and be housed within their hangars), a number of platforms proved more capable due to their greater size, fuel capacity, and lift capability. However, these platforms were simply not able to operate in the complex maritime environment (all weather, day and night, landing on the moving platform of a ship at sea) that the MH-60S is capable of.

Summary:

Having found that proposed heavy lift mitigators will likely not meet the Fleet's heavy/oversize material lift requirements beyond 2020, USFF concluded that if the Navy's VHL inventory is not maintained, a capacity gap will occur in the mission of providing high-priority, high-capacity air logistics support to, from, and within the Seabase. Furthermore, any vertical lift solution should be capable of external lift of at least 10 metric tons to a desired range of not less than 100 nm (with optimum of 400 nm). USFF subsequently recommended that OPNAV continue the VHL mission by pursuing a replacement for the MH-53E.

Additionally, with the expansion of the original scope of the VHL CONOPS, it was concluded that there are a number of benefits of a new T/M/S helicopter larger than the H-60. However, due to the required constraints for operations in the maritime environment associated with the H-60 fleet (size, weight, capability for operating in diverse weather, and ability to land on CRUDES/LCS ships in varying sea state conditions), those platform benefits were realized primarily in the VOD and HA/DR roles. Consequently, the greatest Fleet benefit from the procurement of such a new T/M/S would come in the form of an airborne re-supply helicopter that is as capable (or better) than the MH-53E, consistent with the findings from the AR/LSB ICD and considerable follow-on analyses. The MH-60S, today and even more so as its full capabilities mature, collectively represents the best organic solution for the mission areas evaluated above. As such, the minimal return on investment realized by procuring and sustaining an additional T/M/S, outside the MH-60 and MH-53E (or its follow on), does not represent a judicious allocation of resources.

In closing, it should also be highlighted that the first of the MH-53E fleet (with FLEX mod) will reach the end of its service life beginning in 2020. As such, the Navy is not presented with an urgent need. Fiscal Year 2014 (at the earliest) will provide sufficient time to address the projected capability gaps. This affords the Navy an opportunity to proceed judiciously in decisions regarding the consideration of follow-on aircraft.

REPORT TO CONGRESS
For Calendar Year 2008

Activities Taken Under the Authority of the Marine Mammal Protection Act National Defense Exemption, 23 January 2007



February 2009

EXECUTIVE SUMMARY

The Department of the Navy is submitting this report in response to a request by the House Committee on Armed Services (HASC), promulgated in the Committee Report on the National Defense Authorization Act for Fiscal Year (FY) 2009. As requested by the Committee, this report provides information on: (1) activities undertaken by the Navy under the authority of the Marine Mammal Protection Act (MMPA) National Defense Exemption (NDE) (Appendix A), issued by the Deputy Secretary of Defense (DEPSECDEF) on January 23, 2007; (2) the estimated number of marine mammals killed or injured during this period; (3) an estimate of the population level effects, if any; (4) an update on Navy's progress to achieve full compliance with the MMPA; and (5) the Chief of Naval Operations' views on the impact of future litigation on military readiness.

In Calendar Year (CY) 2008, the Navy conducted numerous testing and training activities within the Department of Defense (DoD) established ranges and operating areas (OPAREAs), including 15 major exercises employing mid-frequency active sonar (MFAS), the use of which was exempt from compliance with the requirements of the MMPA. These exercises included three Undersea Warfare Exercises and one Rim of the Pacific Exercise in the Hawaiian Islands Range Complex (HRC); five Joint Task Force Exercises, four in the Southern California (SOCAL) Operating Area and one on the East Coast; and six Composite Training Unit Exercises, four in SOCAL Operating Area and two on the East Coast. Prior to conducting these exercises, the Navy prepared appropriate environmental planning documentation. The analysis of potential effects to marine mammals from the use of MFAS during these exercises did not predict any mortality or permanent physical injury to marine mammals. Additionally, this analysis concluded that there would be no adverse effects on the annual rates of recruitment or survival of any marine mammal species or stocks, including strategic or depleted stocks. During the exercises, Navy watchstanders and special marine mammal observers did not observe any marine mammals approach a transmitting vessel close enough to cause permanent physical injury. Through the use of After Action Reporting (AAR), the Navy verified that the conclusions drawn in Navy environmental planning documentation were accurate. To the best of Navy's knowledge, there were no individual marine mammals harmed during these activities. The Navy has also determined that the potential for a population level effect is negligible.

Over the past five years, Navy has expended significant effort preparing environmental planning documentation and has been proactively engaged in permitting actions and consultations with cognizant federal wildlife agencies, regarding training activities on 13 major ranges and OPAREAS. Planning, permitting and consultation for three of these areas was completed in January 2009. These study areas are the Hawaiian Island Range Complex (HRC), the Southern California Range Complex (SOCAL) and the Atlantic Fleet Active Sonar Training (AFAST) area covering the Atlantic Coast and the Gulf of Mexico. Planning, permitting and consultations for 9 of the remaining ranges and OPAREAs is scheduled for completion in CY 2009, and for the final OPAREA in CY 2010. The Navy has been working closely with the National Marine Fisheries Service to complete the permitting and consultation processes.

The NDE satisfied the Navy's MMPA compliance requirements during its two-year life, during which time the above mentioned environmental planning, permitting and consultation processes made significant progress. The Navy continues to face other environmental challenges in fulfilling its statutory mandate to organize, train, and equip naval forces for combat due to other environmental laws, specifically with regard to requirements of the National Environmental Policy Act (NEPA), the Coastal Zone Management Act (CZMA), and the Endangered Species Act (ESA). Over the last year, the Navy defended itself against four separate lawsuits wherein environmental groups, relying on these environmental laws, sought to impose additional training restrictions on the Navy's use of MFAS that would significantly degrade military readiness. Without the U.S. Supreme Court's action in one case, Navy training would have been subject to the full impact of a District Court's preliminary injunction, which would have seriously limited our ability to properly train and certify our forces, significantly increasing risk to our Sailors and

jeopardizing our national security. This case was vital to our Nation's security and the combat readiness of the U. S. Navy. We are thankful for the careful consideration and prompt review the Court gave this important case. In a separate lawsuit challenging Navy's worldwide MFAS training and testing, Navy and six environmental groups settled the case without imposing additional training restrictions. Favorable resolution of these cases, however, does not represent the end of environmental groups' efforts to prevent Navy from training and testing effectively with MFAS. Further restrictions could be imposed by further litigation. Once established, such additional restrictions would serve as the baseline upon which further restrictions could be imposed, through further litigation or by inclusion in permitting and consultation requirements. Further restrictions that interfere with Navy's ability to effectively train for the Navy's number one threat – quiet enemy submarines - may require Navy, at some point in the future, to return to Congress for assistance.

TABLE OF CONTENTS

1.0 Introduction 2
1.1 Report Requirement 2
1.2 National Defense Exemption (NDE) Background 2
1.3 Mitigation Measures During the NDE Period 2
2.0 Activities Taken Under the Authority of the NDE 4
2.1 Activities Undertaken within Established DoD Maritime Ranges or OPAREAs 4
2.1.1 Unit Level Training Activities 4
2.1.2 Coordinated Unit Level Training Activities 4
2.1.3 Major Training Exercises 4
2.1.4 Research Development Testing & Evaluation (RDT&E) 4
2.1.5 Active Sonar Maintenance and New Construction 5
2.2 Major Training Exercises Conducted Under the NDE 5
2.2.1 COMPTUEXs 5
2.2.2 JTFEXs 5
2.2.3 USWEXs 6
2.2.4 Rim of the Pacific (RIMPAC) 2008 6
2.3 Activities Relating to the IEER Sonobuoy 6
3.0 Military Readiness Assessment 8
3.1 The Navy's Statutory Mission – Maintain Military Readiness 8
3.2 Readiness Through Training 8
3.2.1 Training with Sonar 8
3.3 Chief of Naval Operations' Assessment on Impact to Military Readiness of Future Federal Court Rulings 9
4.0 Estimated Number and Species of Marine Mammals Killed or Injured. 11
5.0 Population Level Effects 13
5.1.1 Summary of NMFS' Population Level Effects Findings for Navy MFAS Actions 13
6.0 CY 2008 Compliance Progress and Update 14
6.1 Background 14
6.2 Navy Range EIS Status 14
7.0 Summary 16

LIST OF APPENDICES

Appendix A - National Defense Exemption A-1
Appendix B - Multi-Static Mitigation Procedures – AN/SSQ-110A B-1

LIST OF TABLES

Table 1 – Major Exercises using MFAS by Type and Location 5
Table 2 - Marine Mammal Exposure Estimates and Sightings From Major Training Exercises Conducted in 2007 12

ACRONYMS AND ABBREVIATIONS

AAR	After Action Report
AFAST	Atlantic Fleet Active Sonar Training
ASW	Anti-Submarine Warfare
BO	Biological Opinion
CG	Aegis Guided Missile Cruiser
CHASN	Charleston
CNO	Chief of Naval Operations
COMPTUEX/C2X	Composite Training Unit Exercise
CPF	Commander Pacific Fleet
CSG	Carrier Strike Group
CY	Calendar Year
CZMA	Coastal Zone Management Act
DDG	Guided Missile Destroyer
DEPSECDEF	Deputy Secretary of Defense
DoD	Department of Defense
DON	Department of Navy
EA	Environmental Assessment
EIS	Environmental Impact Statement
EL	Energy Flux Density Level
EO	Executive Order
ESA	Endangered Species Act
ESG	Expeditionary Strike Group
FFG	Fast Frigate
FY	Fiscal Year
HASC	House Committee on Armed Services
HRC	Hawaiian Islands Range Complex
IEER	Improved Extended Echo Ranging
IHA	Incidental Harassment Authorization
ITS	Incidental Take Statement
JAX	Jacksonville
JTFEX	Joint Task Force Exercise
LOA	Letter of Authorization
MFAS	Mid-Frequency Active Sonar
MIRC	Mariana Islands Range Complex
MIW	Mine Warfare
MMPA	Marine Mammal Protection Act
NAVSEA	Naval Sea Systems Command
Navy	Department of the Navy
NDAA	National Defense Authorization Act
NDE	National Defense Exemption
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRDC	Natural Resources Defense Council
OPAREA	Operating Area
OPFOR	Opposition Force
OPORDER	Operational Order
Ops	Operations
PL	Public Law
PTS	Permanent Threshold Shift
RDT&E	Research, Development, Testing, and Evaluation
RIMPAC	Rim of the Pacific
SCC	Submarine Command Course
SEASWITI	South Eastern ASW Integrated Training Initiative
SECNAV	Secretary of the Navy
SOCAL	Southern California
SOE	Schedule of Events
ULT	Unit Level Training
U.S.	United States
USFF	United States Fleet Forces
USWEX	Undersea Warfare Exercises
VACAPES	Virginia Capes

1.0 INTRODUCTION

1.1 Report Requirement

This report is submitted in response to the House Committee on Armed Services (HASC) requirement in the HASC Committee Report (110-652), pages 330-331.

Excerpt from the HASC Committee Report: "...For the second year of the two-year exemption, the committee directs the Secretary of the Navy to submit a report on specific activities undertaken under the authority of the exemption to the Senate Committee on Armed Services and the House Committee on Armed Services by February 1, 2009. The report shall include the estimated number and species of marine mammals injured and killed as a result of those activities undertaken under the authority of the exemption and an estimate of the population level effect on these species. The committee also directs the Secretary to report on the status of each of the range and operating area EIS's, including a strategy and schedule for achieving long-term compliance with MMPA and other relevant environmental laws if it has not already been achieved. The committee is concerned that naval forces readiness may be affected by a growing number of environmental statutes beyond the Marine Mammal Protection Act. For example, the committee is aware of litigation resulting in an injunction under the National Environmental Policy Act (Public Law 91-190) limiting fleet training exercises to the extent that the Chief of Naval Operations (CNO) concluded "unacceptably risks the training of naval forces for deployment to high-threat areas overseas." The committee welcomes the CNO's view of the readiness implications of future federal court rulings limiting naval force training and will carefully review the outcome of all pending cases..."

1.2 National Defense Exemption (NDE) Background

The National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2004 (Public Law (PL) 108-136) amended the Marine Mammal Protection Act (MMPA) to include a provision whereby the Secretary of Defense, after conferring with the Secretary of Commerce, may exempt any action or category of actions undertaken by the Department of Defense (DoD) or its components from any requirements of the Act should it be necessary for national defense. Based upon a determination that continued training with mid-frequency active sonar (MFAS) is vital to the Navy's Anti-Submarine Warfare (ASW) combat capability and, therefore, key to ensuring national defense, the Deputy Secretary of Defense (DEPSECDEF) exercised this authority. On January 23, 2007, DEPSECDEF issued a two-year NDE (Appendix A) to exempt all military readiness activities that employ MFAS (operating within the frequency range of 1kHz to 10 kHz) or Improved Extended Echo Ranging (IEER) Sonobuoys used either during major training exercises or within established DoD maritime ranges or established operations areas from compliance with the permitting requirements of the MMPA. This exemption expired on January 23, 2009.

The NDE requires the Navy to employ specific mitigation measures developed with, and fully supported by, the National Marine Fisheries Service (NMFS) for MFAS activities occurring during major exercises or on DoD ranges. These measures were designed to strike a reasoned balance between environmental protection, military readiness activities and, ultimately the Navy's mission of National security. The NDE also required the Navy to develop, with NMFS, mutually agreeable mitigation measures applicable to the IEER before the system was deployed for training. The Navy and NMFS developed the IEER mitigation measures (Appendix B) prior to its use in training exercises that started in June 2008. The NDE enables the Navy to employ MFAS in a manner that maintains testing and training fidelity while ensuring protection to marine mammals. By enabling critical MFAS and IEER testing and training to continue in an environmentally sound manner protective of marine mammals, the NDE served as a bridge to future compliance with the authorization requirements of the MMPA.

1.3 Mitigation Measures During the NDE Period

The NDE requires implementation of mitigation measures when using MFAS (Appendix A) and IEER (Appendix B). To implement the NDE and ensure that these mitigation measures were performed, the Navy took the following actions to broadly disseminate the measures and ensure their implementation:

- The Chief of Naval Operations (CNO) issued a naval message on February 22, 2007, directing all Navy commands and operating units to utilize the NDE mitigation measures. The message included the mitigation measures themselves and background information regarding the NDE. Naval messages are operating orders; their directives must be carried out by all addressees. This message was reiterated by the Echelon II commands, U.S. Fleet Forces (USFF), Commander Pacific Fleet (CPF), and Naval Sea Systems Command (NAVSEA), to their subordinate commands by naval message or Letters of Instruction.
- The NDE measures were incorporated into the standard training materials used by shipboard personnel.
- The NDE measures are reinforced prior to each major exercise through the issuance of mitigation measure messages and Letters of Instruction. As previously stated, these are operating orders and must be carried out by all addressees.
- On June 6, 2008, DON and NMFS formalized the mutually agreed upon mitigation measures for IEER use for training (Appendix B).

2.0 ACTIVITIES TAKEN UNDER THE AUTHORITY OF THE NDE

For purposes of this report, actions conducted under the authority of the NDE are presented in three categories: (1) those MFAS activities undertaken within DoD established maritime ranges or designated Operating Areas (OPAREAS), (2) MFAS activities during major training exercises regardless of location, and (3) activities associated with IEER sonobuoys.

2.1 Activities Undertaken within Established DoD Maritime Ranges or OPAREAs

While numerous testing and training activities occur within the Navy's established ranges and OPAREAs, the following describes only those activities associated with the use of MFAS covered by the NDE.

2.1.1 Unit Level Training Activities

Unit level training (ULT) activities encompass training that each individual unit (vessel, aircraft, or submarine) conducts. ULT is a building block, or foundation, during which a unit's Commanding Officer trains his/her unit to develop and maintain basic skills in preparation for advanced training.

The majority of ULT activities involving active sonar components are conducted to meet Mine Warfare (MIW) and ASW training requirements. Some guided missile destroyers (DDGs), guided missile cruisers (CGs), fast frigates (FFGs), and submarines can operate their hull-mounted sonar, normally used for ASW, in an object detection mode. This mode allows ships to detect mines and other objects in the water as well as to navigate through the area. MIW ULT activities focus on training sonar operators to detect, locate, and characterize mine-like objects under various environmental conditions, including those suspended in the water, mines on the ocean floor, and mines buried under the ocean floor. ASW ULT activities focus on training sonar operators on the detection, classification, and tracking of underwater targets. Activities include both near-shore and open-ocean ASW training activities.

2.1.2 Coordinated Unit Level Training Activities

Coordinated ULT activities involve one or more units and concentrate on training warfare teams during initial multi-unit operations. During this phase, vessels and aircraft begin to coordinate warfare skills with other units while continuing to maintain individual unit proficiency. South Eastern ASW Integrated Training Initiative (SEASWITI) and specialty training operations (Ops) such as Submarine Command Course (SCC) Ops are examples of coordinated ULT.

2.1.3 Major Training Exercises

Strike Group training activities continue to develop and refine integrated strike group warfare skills and command and control procedures. The objective of this phase is to ensure that all units in the strike group are prepared to support the group commander's specific mission requirements. Strike Group training activities include exercises such as Composite Training Unit Exercises (COMPTUEXs), Joint Task Force Exercises (JTFEXs), and Undersea Warfare Training Exercises (USWEXs). These training exercises provide realistic training opportunities in a battlefield environment that mimics challenges strike groups could face during deployment. Some of these exercises do not occur entirely within a designated DoD maritime range or designated operating area, yet they are considered a major training exercise. Additional information regarding this category of exercises is provided in Section 2.2.

2.1.4 Research Development Testing & Evaluation (RDT&E)

RDT&E activities associated with ASW and MIW systems are typically conducted to ensure that the ASW and MIW active sonar and IEER systems function properly and meet the operational requirements set forth in the test plan. The sensors tested in conjunction with RDT&E activities are either existing systems

or new systems with similar operating parameters. Approximately 41 RDT&E events were undertaken within established DoD Ranges or OPAREAS under the provisions of the NDE during CY 2008.

2.1.5 Active Sonar Maintenance and New Construction

Active sonar maintenance and testing of sonar equipment on newly constructed vessels includes both pier side and at-sea activities. These activities are required before deployment, after major sonar array maintenance, and when the systems are suspected of not operating at optimal levels.

2.2 Major Training Exercises Conducted Under the NDE

There were 15 major exercises conducted under the NDE for CY 2008 (Table 1). These exercises were comprised of three USWEXs and one RIMPAC in the Hawaiian Islands Range Complex (HRC); five JTFEX, four in the SOCAL and one on the East Coast; six COMPTUEXs, four in SOCAL Operating Area and two on the East Coast. For each of these major exercises the appropriate environmental planning documentation was prepared in compliance with the National Environmental Policy Act (NEPA) and/or Executive Order (EO) 12114. In addition, the Section 7 consultation process per the Endangered Species Act (ESA) was completed for these exercises.

The major training exercises are conducted by Carrier Strike Groups (CSG) and Expeditionary Strike Groups (ESG). A Carrier Strike Group (CSG) generally consists of six units: an aircraft carrier and five surface combatants (cruisers, destroyers, and frigates). Training workups for deployment include exercising with one or more attack submarines and a combined ammunition, oiler, and supply ship. An Expeditionary Strike Group (ESG) consists of an amphibious ready group (amphibious assault ship, transport dock ship, dock landing ship, and various Marine units) in addition to surface combatants, such as those in a CSG. CSGs and ESGs both conduct COMPTUEX in preparation for deployment.

Type of Exercise	# of Exercises	Location
COMPTUEX	2	East Coast (Cherry Point, VACAPES, JAX/CHASN OPAREAs)
COMPTUEX	4	SOCAL
JTFEX	4	SOCAL
JTFEX	1	East Coast (Cherry Point, VACAPES, JAX/CHASN OPAREAs)
USWEX	3	Hawaiian Islands Range Complex
RIMPAC 08	1	Hawaiian Islands Range Complex

Table 1 – Major Exercises using MFAS by Type and Location

2.2.1 COMPTUEXs

COMPTUEX is the first opportunity for a Strike Group to practice coordinated, integrated skills in a complicated threat-based scenario environment simulating real-world combat situations. Each COMPTUEX lasts approximately 3 to 4 weeks. A critical portion of COMPTUEX is the Strike Group demonstrating the ability to execute ASW since it has been consistently proven that the enemy's strategy with submarines is to interdict its opposition before it can affect the fight. The active sonar training portion of a COMPTUEX consists of approximately 10 days. MFAS employed in this scenario include helicopter dipping sonar, sonobuoys, and hull-mounted ship sonar.

2.2.2 JTFEXs

JTFEX is an advanced, free-play, scenario-driven exercise that requires adaptive mission planning by naval forces and operational staffs and often includes other Department of Defense (DoD) Services and/or Allied Forces. JTFEX follows COMPTUEX and validates the attainment of integrated skills in more complicated conditions and scenarios. CSGs and ESGs both conduct JTFEX in preparation for deployment. JTFEX serves as a venue for Fleet Commanders to assess the readiness, interoperability,

and proficiency of naval forces in realistic free-play scenarios spanning the spectrum of armed conflict. At the conclusion of JTFEX, if all required readiness standards are met, the Fleet Commander certifies the Strike Group's readiness to deploy.

Each JTFEX usually lasts less than two weeks. Like COMPTUEX, a critical portion of JTFEX and certification for deployment is the Strike Group's ability to effectively execute ASW. The active sonar training portion of a JTFEX is approximately 7 days. MFAS employed in this scenario is of the same type as that employed in COMPTUEX.

2.2.3 USWEXs

A USWEX is an assessment-based ASW exercise conducted by the CSG or ESG while in transit from the west coast of the United States to the Western Pacific Ocean. Along with the assessment goal, there is significant training value in USWEX. The USWEX is designed to assess our ability to conduct ASW in the most realistic environment, against the level of threat expected to effect changes to both training and capabilities, (e.g., equipment, tactics, and changes to size and composition of the Strike Groups and manning). While other training exercises occur during the remainder of the deployment, USWEXs are conducted shortly after the start of their deployment to ensure the Strike Groups are fully capable of conducting strike warfare while defending themselves against submarines.

All USWEX activities conducted during the NDE period were within the HRC, which encompasses offshore, near shore, and onshore areas located on or around the major islands of the Hawaiian Island chain. ASW training conducted during a USWEX utilizes ships, submarines, aircraft, non-explosive exercise weapons, and other training systems and devices. During an ESG USWEX, amphibious forces would utilize the beaches at Pacific Missile Range Facility or at Marine Corps Training Area Bellows to conduct amphibious landings.

2.2.4 Rim of the Pacific (RIMPAC) 2008

RIMPAC, hosted by Commander, U.S. Pacific Fleet, demonstrates the Navy's commitment, as expressed in the Maritime Strategy, to work with the Navy's global partners to protect maritime freedom that is the basis for global prosperity and to ensure stability throughout the Pacific Rim. The RIMPAC '08 exercise was the twenty-first in a series of RIMPAC exercises conducted periodically since 1971. RIMPAC allows the U.S. Navy to remain a powerful component of combined and joint warfare and exhibits our close cooperation with other Services and international partners. Engagements like RIMPAC support the Maritime Strategy by building trust. Trust enables partnerships and strong partnerships increase maritime security.

Since 1971, the U.S. Navy has conducted these multi-national biennial, sea control and power projection Fleet exercises in the Hawaiian Islands Range Complex. These exercises, which historically last for a month, have included a series of anti-submarine warfare training events that employ MFAS. RIMPAC exercises typically encompass in-port training, command and control, aircraft operations, ship maneuvers, amphibious landings, troop movements, gunfire and missile exercises, submarine and antisubmarine exercises, mining and demolition activities, sinking exercise, salvage, special warfare, and humanitarian operations. Detailed planning for these exercises begins at least a year before the start of the exercises.

RIMPAC '08 forces included 20 U.S. ships, 13 foreign ships, two Coast Guard vessels, three U.S submarines, three foreign submarines, over 150 U.S. and foreign aircraft, 18 other U.S. Navy and Marine Corps units and 11 foreign units supporting the exercise. Participating nations included Australia, Canada, Chile, Japan, Netherlands, Peru, Republic of Korea, Singapore, United Kingdom and the U.S. These exercises involved approximately 20,000 Sailors, Airmen, Marines, Soldiers and Coastguardsmen.

2.3 Activities Relating to the IEER Sonobuoy

The IEER sonobuoy uses an explosive charge to create the sound wave required for detection of submarines. As directed by the NDE, the Navy and NMFS developed the IEER mitigation measures

(Appendix B) prior to its use in training exercises, starting June 2008. These measures included visual (aerial) and aural (sonobuoy receiver) monitoring prior to and continuously when using the system.

Few IEER sonobuoys were used during Fleet training exercises occurring in CY 2008. Specific information regarding the level of IEER activity which occurred within each of the established DoD ranges and OPAREAs during CY 2008 is classified. Should this information be desired, the Navy will be pleased to provide it upon request, with appropriate controls.

3.0 MILITARY READINESS ASSESSMENT

3.1 The Navy's Statutory Mission – Maintain Military Readiness

Section 5062 of title 10 of the United States Code mandates that the Navy be organized, trained, and equipped for combat.

3.2 Readiness Through Training

The key to combat effectiveness is realistic training in the air, on land, on and under the sea – the single greatest tool the military has in preparing and protecting our naval forces. "Train As We Fight" is not just a phrase - it is a statement of the absolute necessity to realistically train our naval forces for the conditions in which they may find themselves while protecting the nation. Training "as we intend to fight" means realistic exercises which replicate the stress, discomfort, and physical conditions of combat. A realistic training program is the best means, short of combat, of preparing our forces and generating confidence in, and knowledge of, our plans, tactics, and procedures. Large-scale training exercises, including exercises at sea, involve all elements of naval forces and connect people to their missions before they are actually employed. The Navy trains as if full-scale armed conflict were imminent. Whether conducting training or combat, the same organizational structure, procedures, command and control, equipment, and thinking apply. Since the Navy fights as a component and fights as a member of a joint or combined team, Navy must train as joint and combined teams to ensure development of maritime component core competencies.

The Navy's at-sea training range complexes and operating areas are where the learning takes place, the warfighting skills are honed, the "first encounters" are realistically re-created, mistakes are made and learning is achieved without lethal results. The Navy relies on the full use of at-sea range complexes and operating areas to provide the combat-like experience that gives our forces a competitive advantage in war. These complexes and areas, individually and collectively, provide land, sea, undersea, and airspace where naval forces can train as they will fight, while providing the ability to test and evaluate future capabilities.

No amount of technology, hardware, or classroom education can achieve the required level of combat readiness without access to quality range complexes and operating areas that afford our naval forces the realistic training needed to execute their missions. Simulation and models can help, but they are no substitute for training and operating in the environment in which operations will occur.

3.2.1 Training with Sonar

ASW requires constant attention to maintain proficiency. While our long-term compliance documents are being developed, we must continue to conduct realistic combat training. The inability to train and maintain strike group ASW capability to succeed at the highest level possible would present an overwhelming national security concern, as the failure to do so could result in significant adverse results in combat, including the significant loss of ships and life. Our Sailors and Marines must receive the training they need to fight and win. The key to maintaining the Navy's ability to defend against adversary submarines is the comprehensive "at-sea" training regime, especially the use of active sonar.

Modern diesel electric submarines utilize quieting technologies, take advantage of the shallow water littoral environment to defeat passive sonar, and are armed with anti-ship weapons of increasing range and lethality. MFAS is the most effective tool for locating and tracking these submarines at distances that preclude them from effectively attacking ships. Without MFAS, Navy ships are extremely vulnerable to enemy modern, quiet submarines. Training with MFAS is, therefore, critical to our national security.

To effectively detect, track, and neutralize an adversary's submarines, our air, surface and submarine assets must work seamlessly together to share and exploit limited location and intelligence data. Unit level ASW training only addresses internal unit skills and does not exercise and integrate air, surface, and undersea combat assets. Each of these combat assets must train and work together with a broad array of tools, including MFAS, to effectively locate and neutralize the adversary.

ASW is the linchpin of sea control. With the proliferation of modern, quiet submarines, the ASW challenge has become more significant. To counter adversarial submarine challenges, the Navy's only course of action is to conduct extensive integrated training including the use of active sonar that mirrors the intricate operating environment present in hostile waters.

3.3 Chief of Naval Operations' Assessment on Impact to Military Readiness of Future Federal Court Rulings

The NDE merely removed one statutory basis upon which the Navy can be challenged regarding environmental compliance while the Navy continues preparing range and operating area Environmental Impact Statements (EISs). Although the NDE satisfied Navy's compliance with MMPA, the Navy continues to face several challenges in fulfilling its statutory mandate to organize, train, and equip naval forces for combat due to other environmental laws (i.e., ESA, NEPA, and CZMA). Over the last year, the Navy defended itself against four separate lawsuits involving MFAS with respect to these environmental laws. These lawsuits sought to impose additional operational restrictions that would significantly and adversely impact military combat readiness. For example, the Natural Resources Defense Council (NRDC) and other environmental groups, in *NRDC v. Winter*, challenged Navy's use of MFAS during 14 vital ASW combat certification training exercises occurring through January 2009 in waters off the coast of Southern California. The District Court for the Central District of California issued a preliminary injunction, later affirmed by the 9th Circuit Court of Appeals, which imposed several crippling restrictions on sonar use. Navy appealed the preliminary injunction to the Supreme Court because it imposed unacceptable risk to the Nation and the Navy's ability to adequately train Strike Groups for combat deployment. The two most damaging training restrictions were a requirement for a complete sonar shutdown whenever a marine mammal came within 2,200 yards of the sonar source, and a 75% sonar power down during presence of significant surface ducting conditions, regardless of the presence of marine mammals. Ruling in Navy's favor, the Supreme Court vacated these two training restrictions. Without the Supreme Court's action, Navy training would have been subject to the full impact of the District Court's injunction, which would have seriously limited our ability to properly train and certify battle-ready forces, significantly increasing risk to Sailors and Marines and jeopardizing national security. We appreciate the careful consideration and prompt review the Supreme Court gave this important case, and are pleased with a final outcome that allows us to train our Sailors under realistic combat conditions and certify our crews as combat ready in a manner that protects our Nation's security as well as our precious marine environment.

In separate litigation, the Navy and NRDC and five other groups recently settled a lawsuit that has been pending for more than 3 years, one that challenged the Navy's training and testing with MFAS anywhere in the world. The mutually-agreed upon settlement preserves the Navy's ability to conduct realistic ASW training, essentially adopting the long range program for environmental analysis and research that the Navy and the National Oceanic and Atmospheric Administration (NOAA) agreed to in August 2005, months before the lawsuit was originally filed. As part of the settlement, Navy committed to adhere to its previously formulated plan of action and milestones for completing seven EISs (the Hawaii Range Complex EIS was completed in June 2008, the Southern California Range Complex EIS was completed on January 21, 2009, and the Atlantic Fleet Active Sonar Training EIS was completed on January 23, 2009) as part its long term environmental analysis program. The settlement enables the Navy to continue focusing resources on specific marine mammal research, which is more constructive than litigation. The settlement agreement identifies marine mammal research topics of mutual interest to the Navy and the Plaintiffs towards which the Navy will direct $14.75 million of its research dollars over the next three fiscal years. As a world leader in marine mammal research, the Navy will also provide to the Plaintiffs briefings

on marine mammal research issues. Per the settlement, NRDC cannot bring suit against any federal agency involved in these EISs for 120 days from the date of the Record of Decision (ROD), during which time NRDC and the Navy may meet and confer. The settlement agreement does not require any additional operational restrictions - the Navy will continue to implement its proven suite of protective mitigation measures previously developed jointly with NOAA and NMFS.

One additional case, a challenge to the use of MFAS during USWEX in the HRC, was dismissed in January 2009. For future USWEX's, all NEPA, MMPA, ESA, and CZMA requirements will be in place.

Resolution of these cases, however, does not mean the end of concerted efforts of environmental groups to restrict Navy from MFAS training. Environmental groups and/or federal/state/local regulators will continue to seek additional operation restrictions via judicial, administrative, or legislative means. Each additional operational restriction incrementally contributes to a mitigation baseline, upon which future litigants, commentators on environmental planning documents, and regulatory permits/authorizations will undoubtedly seek to build and impose even greater operational restrictions. Each additional operational restriction carries the potential to degrade training essential to ASW proficiency, prevent Strike Group realistic combat training and certification, and disrupt the Navy's ability to provide fully capable naval forces to meet any and all national security requirements.

In summary, future litigation that interferes with the Navy's ability to effectively train for the most significant warfare challenges that our ships and Sailors face may require the Navy, at some point in the future, to return to Congress for assistance.

4.0 ESTIMATED NUMBER AND SPECIES OF MARINE MAMMALS KILLED OR INJURED

This portion of the report contains the estimated number of marine mammals and species that were killed or injured as a result of the Navy conducting activities under the NDE. The analysis of potential effects contained in the Navy's environmental planning documentation concluded the use of MFAS would result in no deaths or permanent physical injuries of an individual or group of marine mammals. Additionally, in its Biological Opinions (BOs) issued under the ESA for the major training exercises conducted under the NDE, NMFS determined that the use of MFAS covered by the NDE was not likely to kill or injure threatened or endangered marine mammals.

Permanent threshold shift (PTS) is the non-recoverable destruction of tissues within the auditory system and is used as the criteria for physiological effects. The smallest amount of PTS (onset-PTS) is taken to be the indicator for the smallest degree of injury that can be measured. Marine mammals predicted to receive a sound exposure with energy flux density level (EL) of 215 dB re 1 μPa^2-s or greater are assumed to experience PTS. Generally, acoustic energy will propagate such that an EL greater than 215 dB re 1 μPa^2-s will not occur at a distance greater than 10 m from the MFAS source. Thus, if a marine mammal is sighted within 10 m of the transmitting vessel, we can assume that the marine mammal has experienced PTS, and thus has been injured.[1]

The Navy's after action reporting system requires units participating in major exercises to report the number of marine mammals that were sighted during the conduct of the exercise. Participating ships, submarines, and aircraft are required to report the date, time, distance from unit, and action taken by the unit, if any. Based on these After Action Reports (AARs), with the exception of the dolphins that routinely ride the bow wave, no marine mammal was sighted within the range of injury (10 meters) of any transmitting vessel during these exercises (Table 2). Additionally, these AARs contain no evidence that marine mammals were killed or injured during these exercises. Therefore, the Navy concludes that no marine mammals were injured or killed as a result of the conduct of the activities under the NDE.

Exercise	Mortality estimated from Environmental Planning Document	Injury estimated from Environmental Planning Document (PTS >215 EL)[1]	Sightings w/in 10 meters of transmitting MFAS vessel
ATLANTIC			
CSG COMPTUEX 08-2	0	0	0
ESG COMPTUEX 08-3	0	0	0
CSG JTFEX 08-4	0	0	5[2]
PACIFIC			
CSG JTFEX 08-3	0	0	1[2]
CSG USWEX 08-3	0	0	0
CSG COMPTUEX 08-3	0	0	0
ESG COMPTUEX 08-5	0	0	0
CSG JTFEX 08-5	0	0	3[2]

[1] This assumption does not apply to dolphins engaging in bow-riding behavior because they remain outside the propagation pattern of hull-mounted MFAS.

Exercise	Mortality estimated from Environmental Planning Document	Injury estimated from Environmental Planning Document (PTS >215 EL)[1]	Sightings w/in 10 meters of transmitting MFAS vessel
ESG USWEX 08-4	0	0	0
CSG USWEX 08-5	0	0	0
RIMPAC '08	0	0	1[2]
CSG COMPTUEX 09-1	0	0	0
ESG COMPTUEX 09-2	0	0	0
CSG JTFEX 09-1	0	0	0
ESG JTFEX	0	0	*After Action Report not completed

[1] Based on the modeling, eight Common Dolphins would be exposed to the PTS threshold of 215 dB re 1 μPa^2-s for the JTFEX/COMPTUEX in SOCAL. However, no serious injury or mortality of any marine mammal species is reasonably foreseeable as mitigation measures were expected to be effective in reducing the potential for injury.
[2] Represents sightings of dolphin pods that elected to close with the ship(s) operating MFAS to ride the bow wave. Dolphins riding a ship's bow wave are outside of the main beam of the MFAS vertical beam pattern where source levels drop quickly outside of the main beam. Sidelobes of the radiate beam pattern that point to the surface are significantly lower in power. Together with spherical spreading losses, received levels in the ship's bow wave can be more than 42 dB down power. Finally, bow wave riding dolphins are frequently in and out of a bubble layer generated by the breaking bow waves. This bubble layer is an excellent scatterer of acoustic energy and can further reduce received energy.
* The data needed to complete this matrix was not available. After Action Reports are due within 120 days of the completion of the exercise, which had not passed at the time of drafting this report.

Table 2 - Marine Mammal Exposure Estimates and Sightings From Major Training Exercises Conducted in 2007

5.0 POPULATION LEVEL EFFECTS

In its environmental planning analyses, the Navy concluded that no MFAS adverse effects on the annual rates of recruitment and survival of any marine mammal species or stock or population level impacts were expected.

With the exception of the dolphins that were sighted riding the bow wave within 10 m of transmitting vessels, no marine mammals were sighted within the range of injury (10 meters) while MFAS was employed. The AARs contained no evidence of injury or death to marine mammals as a result of MFAS usage. The Navy acknowledges that it is not possible to account for animals not observed; however, the low number of marine mammal sightings qualitatively indicate a lower density of marine mammals than used for predictive analysis, which further reduces the likelihood of a population level effect.

5.1.1 Summary of NMFS' Population Level Effects Findings for Navy MFAS Actions

Per Section 7 of the ESA, the Navy consulted with NMFS for major exercises in which the Navy determined that they may have effects on ESA listed species from the exposure to MFAS. This includes all USWEXs conducted in the HRC, all COMPTUEXs and JTFEXs conducted in the SOCAL OPAREA, all COMPTUEXs and JTFEXs conducted on the East Coast, and RIMPAC 08. For each of the Biological Opinions (BOs) received, (a total of 4 covering 15 exercises), NMFS concluded that exposure to MFAS would not have fitness consequences to an individual ESA-listed species, therefore there would not be any population level effects. This assessment from NMFS resulted in a "no jeopardy" opinion for each of the four BOs.

6.0 CY 2008 COMPLIANCE PROGRESS AND UPDATE

6.1 Background

The Navy's compliance strategy is described in two primary documents: the Secretary of the Navy's (SECNAV) Compliance with Environmental Requirements in the Conduct of Naval Exercises or Training at Sea ("At Sea Policy"), dated December 28, 2000, and the CNO Mid-Frequency Active Sonar Effects Analysis Interim Policy, dated March 6, 2006 ("Sonar Policy"). The "At Sea Policy" stipulates the Navy's requirements for environmental planning documentation for the conduct of exercises and training at sea. It further states that the Navy will prepare environmental planning documents required by NEPA, CZMA, and EO 12114; initiate consultations with regulatory agencies under ESA; and apply for Incidental Take Statements (ITSs) under the ESA or similar permission under the MMPA. The CNO "Sonar Policy" established the timelines by which the Navy will complete major sonar-related compliance documentation.

For all major ranges and OPAREAs, the Navy's strategy is to produce EISs, prepared under NEPA, to consult under the ESA, and to seek authorization from NMFS for MMPA compliance. In 2005, the Navy exchanged letters with NOAA NMFS regarding Navy's long-term strategy towards environmental compliance.

In 2006, the CNO, through his "Sonar Policy" directed the Navy to seek appropriate regulatory authorizations under MMPA and consultation under ESA, if required, for all major training exercises using MFAS. This policy required all exercises commencing after January 1, 2007, to have the appropriate environmental planning and regulatory compliance in place. Per this policy and strategy, in August 2006, the Navy submitted two requests for Incidental Harassment Authorization (IHA) under the MMPA and associated requests for consultation and Environmental Assessments (EAs). One was for the conduct of USWEXs in the HRC over a two-year period of time, and the other was to conduct JTFEX/COMPTUEX exercises in the SOCAL Range Complex over a two-year period of time.

In their letter dated October 5, 2006, NMFS informed the Navy that they would not be able to conclude with a degree of certainty that mitigation measures would eliminate or reduce the potential for serious injury to or mortality of certain species of marine mammals; therefore IHAs could not be utilized to meet the Navy's MMPA compliance requirements. NMFS stated that the Navy should seek authorization through the utilization of a Letter of Authorization (LOA). In addition, NMFS recommended that the Navy prepare EISs, vice EAs, under NEPA to support these LOA requests. Because the time required for preparing and completing an EIS and an LOA for an individual or group of exercises exceeds the time it takes to plan an exercise, the use of the EIS/LOA process is not possible for a single exercise or group of exercises. Therefore, the Navy adopted an approach by which resources would be concentrated on completing the comprehensive EISs for its major training activities.

To meet the milestones required to complete a LOA (approximately 18 months) and an EIS (approximately 2 years), it was necessary for the Navy to be exempted from the permitting requirements of the MMPA while performing the regulatory and environmental planning procedures. The Navy is using the NDE to comply with the MMPA while LOAs are being obtained and appropriate supporting NEPA documents are being prepared. NMFS concurred with this approach and worked with Navy to develop a list of mitigation measures for the NDE (Appendix A) to reduce the likelihood of adverse consequences to marine mammals during this two-year period of time.

6.2 Navy Range EIS Status

Per the strategy developed jointly with NOAA/NMFS above, the Navy is complying with the regulatory requirements for environmental analysis by continuing to develop comprehensive EISs for all major ranges and OPAREAs under NEPA, conducting consultations under the ESA and obtaining BOs, when required, and applying for LOAs under MMPA.

In fiscal year (FY) 2004, the Navy began funding for the programmatic long range comprehensive EISs for 12 ranges and OPAREAs by funding $98 million across the Future Year Defense Plan. The initial 12 ranges and OPAREAs include: Atlantic Fleet Active Sonar Training (AFAST), Virginia Capes Range Complex (VACAPES), Cherry Point Range Complex, Jacksonville Range Complex (JAX), Undersea Warfare Training Range (USWTR), Gulf of Mexico (GOMEX) Range Complex, Southern California (SOCAL) Range Complex, Northwest Training Range Complex (NWTRC), Hawaii Range Complex (HRC), Mariana Islands Range Complex (MIRC), NUWC Keyport Range Complex, and NSWC Panama City Study Area. Although not included in the original scope of the Navy's funding for the 12 comprehensive range EISs, the Gulf of Alaska EIS was initiated in FY 2007 and is scheduled to complete in CY 2010.

Notices of Intent to initiate the NEPA process have been issued for the initial 12 EISs covering ranges and OPAREAs and the recent Gulf of Alaska EIS. NMFS and Navy have been aggressively working through the NEPA and MMPA processes for all of these EISs. The SOCAL HRC, and the AFAST LOAs, BOs and associated EISs were completed prior to the NDE's expiration. Approximately 80% of the Navy's on-range sonar training occurs within the study areas covered by these EISs. The remaining ten range and OPAREAS EISs are in various stages of development: 1) nine Draft EISs have been released for USWTR, NSWC Panama City, NUWC Keyport, VACAPES, JAX, Cherry Point, NWTRC, and GOMEX; 2), and MIRC Draft EIS is scheduled for release late January 2009; and 3) the Gulf of Alaska Draft EIS is scheduled for release in August 2009.

NMFS and Navy remain engaged as Cooperating Agencies for each of these EISs and the associated LOAs and BOs and will reach full compliance by the end of CY 2009 for the initial 12 range and OPAREAs and the end of CY 2010 for the Gulf of Alaska. In addition, NMFS and Navy are working to ensure that the research and methodology being used to estimate potential behavioral effects is based on the best available science.

7.0 SUMMARY

Over CY 2008, the Navy used MFAS in various testing, unit level training activities, and major training exercises within DoD established ranges and OPAREAs. The use of MFAS did not kill or injure any marine mammals and the potential for population level effect to any marine mammal species or stock is negligible.

The Navy is a committed steward of the marine environment. Navy is leading the scientific effort to understand the effects of sonar on marine mammals by continuing our significant investment in marine mammal research and working with the scientific community and agencies. Navy will also continue to work with the regulators and to evaluate available science to develop mitigation measures that safely protect marine mammals from adverse impacts of MFAS while not impeding vital naval training.

NMFS and Navy remain engaged through our cooperating agency status towards completion of the 13 range and OPAREAs EISs and the associated LOAs and BOs and will reach full compliance by the end of CY 2009 for the initial 12 range and OPAREAs and the end of CY 2010 for the Gulf of Alaska.

While the Navy has made tremendous progress towards meeting the requirements of all applicable environmental laws during the two years of the NDE, there is a significant likelihood that continued litigation and attempts to impose ever greater operational restrictions on sonar use will present unacceptable risk to combat certification of Navy Strike Groups in ASW. At a time when coastal nations around the world are heavily investing in submarine capabilities, this presents a critical challenge for our Nation and the Navy. The Navy appreciates the Congress' support in both ASW and environmental protection, and we look forward to continued dialogue on a topic of the highest importance to our national security and the safety of our Sailors and Marines.

Appendix A - National Defense Exemption

DEPUTY SECRETARY OF DEFENSE

1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

JAN 23 2007

MEMORANDUM FOR SECRETARY OF THE NAVY

SUBJECT: National Defense Exemption from Requirements of the Marine Mammal Protection Act for Certain DoD Military Readiness Activities That Employ Mid-Frequency Active Sonar or Improved Extended Echo Ranging Sonobuoys

Pursuant to Title 16, Section 1371(f), of the United States Code, and having conferred with the Secretary of Commerce, I have determined that it is necessary for the national defense to exempt all military readiness activities that employ mid-frequency active sonar or Improved Extended Echo Ranging sonobuoys (IEER), either during major training exercises, or within established Department of Defense maritime ranges or established operating areas, from compliance with the requirements of the Marine Mammal Protection Act, Title 16, Sections 1361 – 1421h, of the United States Code. For purposes of this exemption, mid-frequency active sonar is defined as those active sonar systems operating within the frequency range of 1 kHz to 10 kHz. IEER is a new sensor system that is finishing development and nearing deployment. A military readiness activity is defined in Section 315(f) of Public Law 107-314.

Specific actions falling within these categories of actions are exempted for a period of two years from today's date, or the date at which the Department of Navy is granted authorization under the Marine Mammal Protection Act for one or both of these categories of actions as associated with a specific proposed activity, whichever is earliest. In the event the exemption terminates as to a specific proposed activity having been granted authorization under the Marine Mammal Protection Act for one or both of these categories of actions, the exemption shall remain in full force and effect as to all other exempted categories of actions.

During the exemption period, the Department of the Navy will execute the plan coordinated with the Department of Commerce to come into full compliance with the requirements of the Marine Mammal Protection Act. During this exemption period, all exempted military readiness activities employing mid-frequency active sonar shall follow the attached "Mid-Frequency Active Sonar (MFAS) Mitigation Measures during Major Training Exercises or within Established DoD Maritime Ranges and Established Operating Areas." Before using IEER for training, the Department of the Navy will develop with the National Marine Fisheries Service mutually agreeable mitigation measures applicable to IEER as information evolves on its use and tactics.

Attachment:
Mid-Frequency Active Sonar (MFAS) Mitigation Measures during Major Training Exercises or within Established DoD Maritime Ranges and Established Operating Areas

Mid-Frequency Active Sonar Mitigation Measures during Major Training Exercises or within Established DoD Maritime Ranges and Established Operating Areas

I. General Maritime Protective Measures: Personnel Training:

1. All lookouts onboard platforms involved in ASW training events will review the NMFS-approved Marine Species Awareness Training (MSAT) material prior to use of mid-frequency active sonar (MFA).

2. All Commanding Officers, Executive Officers, and officers standing watch on the bridge will have reviewed the MSAT material prior to a training event employing the use of MFA.

3. Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (NAVEDTRA 12968-B).

4. Lookout training will include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not preclude personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

5. Lookouts will be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

II. General Maritime Protective Measures: Lookout and Watchstander Responsibilities:

6. On the bridge of surface ships, there will always be at least three people on watch whose duties include observing the water surface around the vessel.

7. In addition to the three personnel on watch noted previously, all surface ships participating in ASW exercises will, have at all times during the exercise at least two additional personnel on watch as lookouts.

8. Personnel on lookout and officers on watch on the bridge will have at least one set of binoculars available for each person to aid in the detection of marine mammals.

9. On surface vessels equipped with MFA, pedestal-mounted "Big Eye" (20x110) binoculars will be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

10. Personnel on lookout will employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-B).

11. After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

12. Personnel on lookout will be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

III. Operating Procedures

13. A Letter of Instruction, Mitigation Measures Message, or Environmental Annex to the Operational Order will be issued prior to the exercise to disseminate further the personnel training requirement and general marine mammal protective measures.

14. Commanding Officers will make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

15. All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) will monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

16. During MFA operations, personnel will utilize all available sensor and optical systems (such as Night Vision Goggles to aid in the detection of marine mammals.

17. Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

18. Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yards of the sonobuoy.

19. Marine mammal detections will be immediately reported to the assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate when it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

20. Safety Zones - When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) within 1,000 yards of the sonar dome (the bow), the ship or submarine will limit active transmission levels to at least 6 dB below normal operating levels.

    (i) Ships and submarines will continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards beyond the location of the last detection.

    (ii) Should a marine mammal be detected within or closing to inside 500 yards of the sonar dome, active sonar transmissions will be limited to at least 10 dB below the equipment's normal operating level. Ships and submarines will continue to limit maximum ping levels by this 10-

dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards beyond the location of the last detection.

(iii) Should the marine mammal be detected within or closing to inside 200 yards of the sonar dome, active sonar transmissions will cease. Sonar will not resume until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards beyond the location of the last detection.

(iv) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the Officer of the Deck concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(v) If the need for power-down should arise as detailed in "Safety Zones" above, the ship or submarine shall follow the requirements as though they were operating at 235 dB - the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 sonar was being operated).

21. Prior to start-up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

22. Sonar levels (generally) – The ship or submarine will operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

23. Helicopters shall observe/survey the vicinity of an ASW exercise for 10 minutes before the first deployment of active (dipping) sonar in the water.

24. Helicopters shall not dip their sonar within 200 yards of a marine mammal and shall cease pinging if a marine mammal closes within 200 yards after pinging has begun.

25. Submarine sonar operators will review detection indicators of close-aboard marine mammals prior to the commencement of ASW operations involving active mid-frequency sonar.

26. Increased vigilance during major ASW training exercises with tactical active sonar when critical conditions are present:

Based on lessons learned from strandings in the Bahamas (2000), the Madeiras (2000), the Canaries (2002) and Spain (2006), beached whales are of particular concern since they have been associated with MFA operations. Navy should avoid planning major ASW training exercises with MFA in areas where they will encounter conditions that, in their aggregate, may contribute to a marine mammal stranding event.

The conditions to be considered during exercise planning include:

(1) Areas of at least 1,000 m depth near a shoreline where there is a rapid change in bathymetry on the order of 1,000-6,000 meters occurring across a relatively short horizontal distance (e.g., 5 nm).

(2) Cases for which multiple ships or submarines (≥ 3) operating MFA in the same area over extended periods of time (≥ 6 hours) in close proximity (≤ 10 nm apart).

(3) An area surrounded by land masses, separated by less than 35 nm and at least 10 nm in length, or an embayment, wherein operations involving multiple ships/subs (≥ 3) employing MFA near land may produce sound directed toward the channel or embayment that may cut off the lines of egress for marine mammals.

(4) Although not as dominant a condition as bathymetric features, the historical presence of a significant surface duct (i.e., a mixed layer of constant water temperature extending from the sea surface to 100 or more feet).

If the major exercise must occur in an area where the above conditions exist in their aggregate, these conditions must be fully analyzed in environmental planning documentation. Navy will increase vigilance by undertaking the following additional protective measure:
A dedicated aircraft (Navy asset or contracted aircraft) will undertake reconnaissance of the embayment or channel ahead of the exercise participants to detect marine mammals that may be in the area exposed to active sonar. Where practical, advance survey should occur within about two hours prior to MFA use, and periodic surveillance should continue for the duration of the exercise. Any unusual conditions (e.g., presence of sensitive species, groups of species milling out of habitat, any stranded animals) shall be reported to the Officer in Tactical Command (OTC), who should give consideration to delaying, suspending or altering the exercise.

All Safety Zone requirements described in Measure 20 apply.

The post-exercise report must include specific reference to any event conducted in areas where the above conditions exist, with exact location and time/duration of the event, and noting results of surveys conducted.

IV. Coordination and Reporting

27. Navy will coordinate with the local NMFS Stranding Coordinator regarding any unusual marine mammal behavior and any stranding, beached live/dead, or floating marine mammals that may occur at any time during or within 24 hours after completion of mid-frequency active sonar use associated with ASW training activities.

28. Navy will submit a report to the Office of Protected Resources, NMFS, within 120 days of the completion of a Major Exercise. This report must contain a discussion of the nature of the effects, if observed, based on both modeled results of real-time events and sightings of marine mammals.

29. If a stranding occurs during an ASW exercise, NMFS and Navy will coordinate to determine if MFA should be temporarily discontinued while the facts surrounding the stranding are collected.

Appendix B - Multi-Static Mitigation Procedures – AN/SSQ-110A

AN/SSQ-110A Pattern Deployment:

1. Crews will conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search should be conducted below 1500 feet (ft) at a slow speed when operationally feasible and weather conditions permit. In dual aircraft operations, crews may conduct coordinated area clearances.

2. Crews shall conduct a minimum of 30 minutes of visual and aural monitoring of the search area prior to commanding the first post (source/receiver son buoy pair) detonation. This 30 minute observation period may include pattern deployment time.

3. For any part of the briefed pattern where a post will be deployed within 1000 yards (yds) of observed marine mammal activity, crews will deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 1000 yds of the intended post position, crews will collocate the AN/SSQ-110A sonobuoy (source) with the receiver.

4. When operationally feasible, crews will conduct continuous visual and aural monitoring of marine mammal activity, including monitoring of their aircraft sensors from first sensor placement to checking off-station and out of RF range of the sensors.

AN/SSQ-110A Pattern Employment:

1. Aural Detection: Aural detection of marine mammals cues the aircrew to increase the diligence of their visual surveillance. If, following aural detection, no marine mammals are visually detected, then the crew may continue multi-static active search.

2. Visual Detection: If marine mammals are visually detected within 1000 yards of the AN/SSQ-110A sonobuoy intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes or are observed to have moved outside the 1000 yard safety zone. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 1000 yard safety zone.

AN/SSQ-110A Scuttling Sonobuoys:

1. Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure a 1000 yd safety zone, visually clear of marine mammals, is maintained around each post as is done during active search operations.

2. Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary method or tertiary method.

3. Aircrews ensure all payloads are accounted for. Sonobuoys that cannot be scuttled shall be reported as unexploded ordnance via voice communications while airborne and, upon landing, via Naval message.

4. Mammal monitoring shall continue until out of their aircraft sensor range.

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

ACTION MEMO

IN REPLY REFER TO

January 22, 2009

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

VIA: Assistant Secretary Of The Navy (Installations and Environment) BJP

SUBJECT: Marine Mammal Protection Act National Defense Exemption Annual Report to Congress

- TAB A is the Report on the National Defense Authorization Act for FY09 from the House Armed Services Committee (HASC) on activities undertaken under the authority of the National Defense Exemption (NDE). A similar report was provided last year.

- The Navy report provides:

  - A description of specific activities undertaken under the NDE.
  - The estimated number of marine mammals injured and killed as result of those activities.
  - A status of range/operating area Environmental Impact Statements.
  - My view of the readiness implications of future federal court rulings.

- TAB A is the report to Congress. TAB B is the forwarding letters to the HASC and SASC leadership. TAB C is the coordination sheet.

RECOMMENDATION: SECNAV sign TAB B and forward the report to the HASC/SASC leadership
Approve_____ Disapprove_____

29/1/09

AASN
RELEASE
2/6/09

COORDINATION: TAB C

ATTACHMENTS:
As stated

Prepared By: VADM M. K. Loose, DCNO (N4), (703) 693-7651

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

January 29, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

This responds to the requirement set forth in the Report on the National Defense Authorization Act for Fiscal Year 2009 by the House Armed Services Committee. The Department of the Navy is required to submit to the Senate and House Committees on Armed Services a report on those activities undertaken by the Department under the authority of the Marine Mammal Protection Act (MMPA) National Defense Exemption (NDE). The NDE exempts certain military readiness activities employing mid-frequency active (MFA) sonar and Improved Extended Echo Ranging (IEER) sonobuoys from the legal requirements of the MMPA.

As required by the Committee, the enclosed report includes a description of specific activities undertaken under the NDE; the estimated number and species of marine mammals injured and killed as a result of those activities; a status of range/operating area Environmental Impact Statements; and the Chief of Naval Operations' view of the readiness implications of future federal court rulings limiting naval force training.

The report concludes that the Navy's use of MFA sonar and IEER in various training activities over Calendar Year 2008 did not kill or injure any marine mammals. Furthermore, the potential for population level effect on any marine mammal species or stock was found to be negligible.

The MMPA NDE expired on 23 January 2009. It served as a critical and essential bridge to long-term compliance while enabling the Navy to train effectively with MFA sonar and IEER. The Navy remains fully committed to working closely with the National Marine Fisheries Service to complete the environmental planning and MMPA authorization processes covering established Navy ranges and operating areas.

A similar letter has been sent to Chairman Skelton. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable John S. McCain
Ranking member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

January 29, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20510-6035

Dear Mr. Chairman:

This responds to the requirement set forth in the Report on the National Defense Authorization Act for Fiscal Year 2009 by the House Armed Services Committee. The Department of the Navy is required to submit to the Senate and House Committees on Armed Services a report on those activities undertaken by the Department under the authority of the Marine Mammal Protection Act (MMPA) National Defense Exemption (NDE). The NDE exempts certain military readiness activities employing mid-frequency active (MFA) sonar and Improved Extended Echo Ranging (IEER) sonobuoys from the legal requirements of the MMPA.

As required by the Committee, the enclosed report includes a description of specific activities undertaken under the NDE; the estimated number and species of marine mammals injured and killed as a result of those activities; a status of range/operating area Environmental Impact Statements; and the Chief of Naval Operations' view of the readiness implications of future federal court rulings limiting naval force training.

The report concludes that the Navy's use of MFA sonar and IEER in various training activities over Calendar Year 2008 did not kill or injure any marine mammals. Furthermore, the potential for population level effect on any marine mammal species or stock was found to be negligible.

The MMPA NDE expired on 23 January 2009. It served as a critical and essential bridge to long-term compliance while enabling the Navy to train effectively with MFA sonar and IEER. The Navy remains fully committed to working closely with the National Marine Fisheries Service to complete the environmental planning and MMPA authorization processes covering established Navy ranges and operating areas.

A similar letter has been sent to Chairman Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy to:
The Honorable John M. McHugh
Ranking member

COORDINATION PAGE (TAB D)

Office/Dept	Point of Contact/Title	Phone	Date
OPNAV (N3N5)	CDR Holifield Legal Counsel	(703) 692-9043	22 Dec 08
OPNAV (N88)	CAPT Tom Fitzgerald	(703) 695-1669	22 Dec 08
OPNAV (N87)	CAPT Jeff Currer	(703) 604-7390	22 Dec 08
OPNAV (N86)	Mr. Robert Schmidt	(703) 604-1913	22 Dec 08
CPF	CDR Daniel Eldredge Environmental Legal Counsel	(808) 471-6389	22 Dec 08
USFF	Mr. Gary Edwards	(757) 836-5120	22 Dec 08
OLA	CDR Steven Barney	(703) 697-2776	22 Dec 08
OASN (I & E)	CAPT Dean Leech Legal Counsel	(703) 614-3137	22 Dec 08
ONR	Dr Frank Herr	(703) 588-2451	22 Dec 08
USFF	Mr. Joseph Murphy USFF N4/N7	(757) 836-6206	23 Dec 08
OGC	Mr. Tom Ledvina Navy Litigation Office	(703) 614-1994	29 Dec 08
ASN(I&E)	CAPT Robin Brake Director Marine Science	(703) 614-0268	20 Dec 08
ASN(RDA)	Ms Allison Stiller DASN Ships	(703) 697-1710	30 Dec 08
OPNAV (N00J)	CAPT Mike Quinn Legal Advisor to CNO	(703) 692-5310	30 Dec 08
FMBE	CAPT Tom Carney	(703) 692-6729	06 Jan 09
OPNAV (N4)	VADM M. Loose	(703) 693-7691	07 Jan 09
OLA	RADM M. H. Miller	(703) 697-7146	27 Jan 09
SECNAV	CDR Gary Sharp SAL	(703) 697-6935	27 Jan 09

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 15 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the DDG-51 modernization program acquisition strategy and a plan to execute a pilot project for accomplishing a full DDG-51 modernization in a single availability in one of the building yards. This is an interim response.

The enclosed report provides the program of record modernization strategy for DDG-51 Class ships, and the plan for strengthening the Navy's multi-ship/multi-option (MSMO) contract strategy. We are currently finalizing a plan to execute a pilot project that would accomplish the full scope of the DDG 51 hull, mechanical and electrical and combat system maintenance and modernization in a single availability executed at one of the building yards. Preliminary assessments indicate that executing a DDG modernization pilot program at a building yard is feasible, but would cost approximately $36M more than the current program of record. You can expect our final reply by July 31, 2009.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 15 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the DDG-51 modernization program acquisition strategy and a plan to execute a pilot project for accomplishing a full DDG-51 modernization in a single availability in one of the building yards. This is an interim response.

The enclosed report provides the program of record modernization strategy for DDG-51 Class ships, and the plan for strengthening the Navy's multi-ship/multi-option (MSMO) contract strategy. We are currently finalizing a plan to execute a pilot project that would accomplish the full scope of the DDG 51 hull, mechanical and electrical and combat system maintenance and modernization in a single availability executed at one of the building yards. Preliminary assessments indicate that executing a DDG modernization pilot program at a building yard is feasible, but would cost approximately $36M more than the current program of record. You can expect our final reply by July 31, 2009.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 15 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the DDG-51 modernization program acquisition strategy and a plan to execute a pilot project for accomplishing a full DDG-51 modernization in a single availability in one of the building yards. This is an interim response.

The enclosed report provides the program of record modernization strategy for DDG-51 Class ships, and the plan for strengthening the Navy's multi-ship/multi-option (MSMO) contract strategy. We are currently finalizing a plan to execute a pilot project that would accomplish the full scope of the DDG 51 hull, mechanical and electrical and combat system maintenance and modernization in a single availability executed at one of the building yards. Preliminary assessments indicate that executing a DDG modernization pilot program at a building yard is feasible, but would cost approximately $36M more than the current program of record. You can expect our final reply by July 31, 2009.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 15 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to submit a report to the congressional defense committees outlining the DDG-51 modernization program acquisition strategy and a plan to execute a pilot project for accomplishing a full DDG-51 modernization in a single availability in one of the building yards. This is an interim response.

The enclosed report provides the program of record modernization strategy for DDG-51 Class ships, and the plan for strengthening the Navy's multi-ship/multi-option (MSMO) contract strategy. We are currently finalizing a plan to execute a pilot project that would accomplish the full scope of the DDG 51 hull, mechanical and electrical and combat system maintenance and modernization in a single availability executed at one of the building yards. Preliminary assessments indicate that executing a DDG modernization pilot program at a building yard is feasible, but would cost approximately $36M more than the current program of record. You can expect our final reply by July 31, 2009.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

DDG MODERNIZATION
REPORT TO CONGRESS
INTERIM RESPONSE

Prepared by

Naval Sea Systems Command
Surface Warfare Directorate (SEA 21)
Washington, D.C. 20376

May 2009

1. EXECUTIVE SUMMARY

Senate Report 110-335, accompanying the Fiscal Year 2009 Defense Authorization Act, directs the Secretary of the Navy to submit a report discussing the DDG Modernization acquisition strategy with the Fiscal Year 2010 budget request. Specifically, the committee identifies the following contents for this report:

"The report should include a plan to execute a pilot project that would accomplish the full scope of DDG 51 hull, mechanical and electrical, and combat system maintenance and modernization in a single availability executed at one of the building yards. Such plan shall include a detailed quantitative and qualitative assessment of each of the acquisition strategy and availability execution considerations addressed by the Navy's 2008 report on DDG modernization. The report shall also provide a quantitative and qualitative comparison of this building yard plan with the Navy's plan to execute DDG modernization within a MSMO contract framework. The report shall include a plan for strengthening the Navy's MSMO contract strategy by:

(1) establishing a correlation between MSMO solicitation/award criteria and actual DDG 51 modernization program scope of work;

(2) incorporating performance benchmarks, metrics, and incentives that enable the Navy to measure performance and control cost consistent with the discipline required of a major defense acquisition program; and

(3) ensuring viable strategies are available to leverage the benefits of competition across the 5-year duration of the sole source, cost-plus MSMO environment."

The Navy's 2008 assessment documented the intent to modernize DDGs in their homeports under a MSMO contract construct. This partial report describes the decision factors associated with strengthening or bolstering that intention, as requested. In general, a split availability executed under a MSMO construct would consist of a total of 44-weeks in an industrial period; 24-weeks to install hull, mechanical, and electrical system upgrades, followed approximately 2 years later by 20 weeks to install combat system upgrades. The combat system upgrades require an additional 20-week period for system testing pier side during which the ship would be in a reduced operational status.

2. DDG MODERNIZATION PROGRAM OF RECORD

2.1 PROGRAM DESCRIPTION

Modernizing in-service Destroyers is critical to the Navy's recapitalization strategy and surface combatant future force structure requirements. The DDG Modernization Program focuses on installing system modifications and equipment upgrades on DDG 51 Class Destroyers to ensure enhanced warfighting capability and life cycle sustainability over the expected 35 years of service life. The importance of modernizing current Surface Combatants was emphasized in the Chief of Naval Operation's (CNO) testimony to the Senate Armed Services Committee in March 2007, in which he stated, "Achieving full service life from the fleet is imperative. Modernization of the existing force is a critical enabler for a balanced fleet. Platforms must remain tactically capable and structurally sound for the duration of their designed service life."

The DDG Modernization suite is comprised of a set of core HM&E alterations to affect a common control and monitoring system for the entire DDG 51 Class. The core alterations, when implemented in a unified package, enable automation that reduces watchstander workload, as well as associated maintenance and logistics. The Program also introduces commercial computing technology to Aegis Weapon System (AWS) processing and display equipment (as is being accomplished in the CG Modernization Program), establishing a springboard for the addition of future warfighting capabilities, and is crucial to keeping the ships operationally relevant throughout their expected service life.

Ultimately, the planned DDG Modernization Program is expected to reduce the total ownership cost of the Class as well as enhance its warfighting capability. The program applies a total ship systems approach to upgrading Hull, Mechanical, and Electrical (HM&E) systems; modernizing the AWS; and introducing an integrated Ballistic Missile Defense (BMD) capability. The end result of the modernization will be a more effective and efficient class of destroyers, which comprises the majority of the surface fleet for the foreseeable future.

2.2 BACKGROUND

The DDG Modernization Program was established in 2003. The Director for Surface Warfare, Office of the CNO, N86, emphasized the following regarding DDG Modernization via memorandum, DDG 51 CLASS MODERNIZATION PROGRAM, Ser N762/3U622901, of 17 January 2003.

1. Increase Warfighting Capability. Include new capability to counter asymmetrical threats, improve littoral performance, and participate in Ballistic Missile Defense. This will continue the DDG 51 Class contribution to SEA SHIELD and SEA STRIKE.
2. Leverage the DDG 51 shipbuilding program. DDG Modernization will use the technology developed for the final DDGs as a risk reduction for the initial modernization of the early DDGs.
3. Utilize Aegis Test Team lessons learned. Develop an Aegis Modernization Test Team (AMTT) for modernization execution based on the lessons learned and expertise garnered from the Aegis Test Team (ATT) structure that has been successfully demonstrated during DDG 51 new construction work.
4. Reduce Total Ownership Costs (TOC). For the DDG 51 Class to be affordable through its remaining life, TOC, especially manning costs, must be substantially reduced as an end product of DDG Modernization.
5. Adopt Open Architecture (OA) Upgrades. Minimize proliferation of Aegis baselines in accordance with the current Aegis baseline letter. Ensure that combat systems improvements include and leverage OA. Actively participate in OA working groups.

2.3 BUDGET

The Fiscal Year (FY) 2006 President's Budget contained the initial request for DDG Modernization funding, with a focus on HM&E upgrades, and weapon system upgrades which incorporate open architecture.

The FY 2008 President's Budget submission reflected the CNO's priorities and warfighting capability requirements for the modernized DDG 51 Class. Specifically, the modernized

Destroyers should have the following enhancements: surface, subsurface and air defense improvements; a Mission Life Extension (MLE) package to supplement core HM&E upgrades; and a combined modernization work package addressing maintenance, obsolescence, and reliability issues present in the class to achieve an expected 35-year service life.

The FY 2010 President's Budget submission supports execution of the DDG 51 Class Modernization program of record: executing modernization by applying a MSMO construct.

2.4 PLANNING AND EXECUTION

DDG 51 Class modernizations will be executed in two phases during CNO scheduled availabilities. This "split availability" MSMO approach is designed to deliver the technologically mature systems and TOC-reducing HM&E modifications to the fleet at the earliest opportunity.

The split availability approach to DDG Modernization supports the Navy's Fleet Response Plan, which emphasizes an increased level of readiness and the ability to quickly deploy naval forces to respond to crises, conflicts, or homeland defense needs within prescribed timelines. To meet these deployment timelines, the DDG Modernization execution schedule optimizes the amount of time destroyers are available for tasking.

It is estimated that Phase One installations, focusing on HM&E upgrades, will be installed and tested within a 24-week Extended Dry-docking Selected Restricted Availability (EDSRA). These availabilities are currently scheduled to commence in FY10.

Phase Two, the Combat System upgrades, are planned to be installed and tested in a 40-week Extended Selected Restricted Availability (ESRA), comprised of a 20-week industrial availability followed by a 20-week pier side system testing and checkout period. (The nature and duration of this phase exempt it from the six-month limitation of the MSMO contract approach.) These installations will commence in FY12 when the combat system development effort is complete and hardware and software are available.

For both phases, availability duration requirements will continue to be analyzed by the DDG Modernization Availability Duration Working Group as the systems comprising the upgrade packages mature.

3. MSMO ACQUISITION APPROACH

The DDG 51 Modernization Program will apply a MSMO contract construct. This approved acquisition strategy for accomplishing surface ship maintenance and modernization availabilities uses competitively awarded maintenance and modernization service contracts, and is designed for availabilities of less than six months. In addition, the contracts support execution of modernization requirements across multiple DDG 51 Class ships assigned to a particular homeport, rather than issuing a single contract for each ship modernization. MSMO contracts have been awarded since 2004 and there are active MSMO contracts in each of the domestic DDG 51 Class homeports: San Diego, CA; Mayport, FL; Norfolk, VA; Pearl Harbor, HI; and Everett, WA. DDGs homeported in Yokosuka, Japan will be modernized in a continental U.S. homeport using local MSMO contracts.

3.1 BENEFITS OF MSMO CONTRACTING

MSMO contracts establish a long term relationship between the repair activity and other entities required to successfully execute maintenance and modernization aboard DDGs. The relationships developed across the spectrum of activity result in a team arrangement between Naval Sea Systems Command (NAVSEA), the contractor, the planning yard, and the various levels of the Regional Maintenance Centers (RMCs) involved in the day-to-day planning and execution of maintenance and modernization in the homeport. The five year term of the MSMO contract facilitates development of a strong team and sense of ownership, focused on successful support to the ships in the homeport. In addition, the MSMO method allows for the contractor(s) to develop an in-depth understanding of ship configuration, to apply lessons learned from previous installations, to partner in requirements development and work planning, and to become embedded as a primary member of the maintenance team. These lessons are applied in advance of the next ship modernization and are invaluable to the advance planning and execution of the Program.

MSMO contract solicitation process is more efficient than that for a single ship availability contract. Instead of preparing a Request for Proposal (RFP) and evaluating proposals for each availability, MSMO contract vehicles save time and money by providing the Navy multiple ship availability contract coverage.

A MSMO contract includes award of the initial availability, with individual options for follow-on availabilities. This structure provides the Navy with the dual benefits of competition and economies of scale, as well as unilateral discretion to exercise each availability option, depending on the contractor's performance.

Existing MSMO contracts include small business subcontracting requirements of 40%, as well as a requirement that prime contractors use two or more small businesses to achieve that percentage. As a result, the small business subcontracting base is maximized and strengthened.

3.2 MSMO STRENGTHENING EFFORTS

Planned MSMO enhancements encompass the entire process, from solicitation to execution monitoring. The Navy has taken deliberate actions to enhance the acquisition strategy of MSMO contracts. These efforts include reflecting specific DDG Modernization alterations in the RFP, requiring the use of performance metrics and incentives to encourage optimal contractor performance, and leveraging the benefits of a competitive environment.

When combined with other items in an RFP's Notional Work Package, offerors will have the best possible representation of the availability at the time of the solicitation. Enhanced Independent Government Estimates will be developed based on averaging historical cost returns for like work items and cost estimates for first time alterations prepared by the Aegis Destroyer Planning Yard. When evaluating the proposals, the Navy will then have the means to assess with greater fidelity the offeror's ability to execute, from a technical and cost perspective, the DDG Modernization work package.

The Navy intends to utilize enhanced Cost/Schedule Status Reports for future MSMO availabilities to monitor contractor production and cost performance. The ability to review

regularly updated earned value management metrics gives the Navy the benefit of understanding the shipyard's actual cost and schedule performance versus planned or budgeted progress at any point in the availability. This type of contract reporting mechanism was successfully used on USS BUNKER HILL (CG 52) through the Cruiser Modernization Program.

Other key MSMO improvement efforts include:

- Publishing the MSMO solicitation and contract award schedule early to improve the pre-solicitation process to enhance the competitive marketplace.
- Revising the MSMO post-award debriefing process to provide each offeror greater detail of the Navy's analysis of its proposal to help offerors improve their competitiveness for future MSMO contract awards.

REPORT TO CONGRESS

ON

MINE COUNTERMEASURES AND ANTI-SUBMARINE WARFARE MISSION PACKAGE ALTERNATE EMPLOYMENT

Assessment of the Feasibility of Employing Littoral Combat Ship Mine Countermeasures and Anti-Submarine Warfare Mission Packages from Alternate Ships in the Battle Force

Prepared by:

Director, Surface Warfare (OPNAV N86)
Office of the Chief of Naval Operations
2000 Navy Pentagon
Washington, DC 20350 – 2000

April 2009

Not Approved for Public Release

Executive Summary

The Senate Armed Services Committee directed the Secretary of the Navy to evaluate alternatives for employing Littoral Combat Ship (LCS) mission packages on other ship classes of the battle force, and to provide a report of his findings to the congressional defense committees with submission of the 2010 budget request. Specifically, Navy was asked to outline the feasibility, cost, and impacts associated with integrating Mine Countermeasures (MCM) and Anti-Submarine Warfare (ASW) Mission Packages (MPs) on other surface combatant and amphibious force ship classes, and provide an assessment of the operational utility afforded by being able to deploy mission packages across the broader battle force.

None of the potential alternate ships that might employ the MCM or ASW Mission Package are operationally suited to provide a capability similar to LCS. Therefore, the recommendation is that Navy continue with current plans to employ MCM and ASW Mission Packages solely on LCS ships.

The most feasible alternate ship candidates to employ mission packages are those with sufficient capacity to embark the required equipment and personnel, are capable of providing the required module support services with minimal modifications, have at least one certified flight deck spot and hangar to support MH-60S/R and Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV), and are capable of launching and recovering the Unmanned Surface Vehicle (USV) and Remote Multi-Mission Vehicles (RMMV) without the need for special handling equipment. Several U.S. Navy ship classes could potentially satisfy some or all of these requirements. All current and future U.S. Navy ship classes were scrutinized to develop a list of candidate alternate ships. CVN, LHA/LHD, LPD 4/17, and LSD 41/49 were identified as optimal candidates since they offer the greatest potential to accommodate the MCM and ASW MPs. These ships would be capable of supporting the MCM or ASW MP to some degree, with appropriate supplemental equipment and service connection modifications. However, the employment of a MP from these ships would also adversely impact execution of the ship's primary mission. Those that have the greatest potential for use as a MP alternate ship are also the most heavily tasked to perform their primary mission.

The Rough Order of Magnitude (ROM) estimate to modify or install the necessary equipment on these ships is $15 million to $25.1 million depending on the ship and the MP installed. These new requirements would need to be budgeted (not currently in the Navy budget), detailed design and installation plans would need to be developed, and installations would need to be accomplished during scheduled periodic maintenance windows. While with time and funds it would be feasible to employ MP systems from alternate ships, the warfighting capability provided by initial MPs and the capacity of alternate ships to absorb additional mission scope must be considered.

A review of the analysis for this report concludes that insufficient baseline mission packages are available for employment in alternate ships to consider that as an advisable objective. Across each year of the Future Years Defense Program (FYDP), the number of baseline mission packages will not exceed the number of LCS ships available. The current LCS ship and MP profiles are aligned and provide the preferred path to fielding warfighting capability, implementing risk reduction and generating lessons learned to affect continual evolutionary development of mission packages and their constituent technologies. Furthermore, the operational utility gained by employing either the MCM or ASW MP on any potential alternate ship significantly impacts normal ship missions and incurs significant modification costs to prepare an alternate ship capable of employing one of those MPs.

Contingency options for shore based employment of MCM MPs, independent of LCS, are also being assessed under a separate study that will be provided to Congress by June 30, 2009.

Table of Contents

Page

1 Introduction 1
1.1 Background 1
1.2 Objectives 1
1.3 Study Approach and Report Format 1
2 MCM Mission Package 3
2.1 Basic Mission Package 3
2.2 Additional Mission Package Components for Other than an LCS 4
2.3 Embarkation Footprint 6
2.4 Alternate Ship Screening Criteria 7
2.5 Alternate Ship Candidates 8
2.6 Detailed Assessment of Potentially Suitable Candidates 11
2.7 Cost Estimates 20
3 ASW Mission Package 23
3.1 Basic Mission Package 23
3.2 Additional Mission Package Components for Other than an LCS 24
3.3 Embarkation Footprint 27
3.4 Alternate Ship Screening Criteria 27
3.5 Alternate Ship Candidates 28
3.6 Detailed Assessment of Potentially Suitable Candidates 31
3.7 Cost Estimates 39
4 Mission Package Availability 43
4.1 LCS and Mission Package Delivery Timelines 43
5 Findings and Recommendations 46
5.1 Findings 46
5.2 Recommendations 50
Appendix A - Acronyms and Abbreviations A-1
Appendix B - References B-1

Table of Tables

Table 1: Aviation Mission Zone Support Requirements....6
Table 2: Surface Mission Zone Support Requirements....6
Table 3: MCM MP Embarkation and Operational Requirements....7
Table 4: MCM MP Screening Criteria....8
Table 5: MCM MP Alternate Ship Screening....9
Table 6: Ship Aviation Facilities....12
Table 7: MCM MP USV/RMMV Launch and Recovery by Ship Class....13
Table 8: MCM MP USV/RMMV Stowage by Ship Class....15
Table 9: Ship Characteristics and MCM MP Capability Summary....19
Table 10: MCM MP Ordnance....20
Table 11: MCM MP Ship Modification ROM Costs....22
Table 12: Aviation Mission Zone Support Requirements....26
Table 13: Surface Mission Zone Support Requirements....26
Table 14: ASW MP Embarkation and Operational Requirements....27
Table 15: ASW MP Screening Criteria....28
Table 16: ASW MP Alternate Ship Screening....29
Table 17: Ship Aviation Facilities....32
Table 18: ASW MP USV/RMMV Launch and Recovery by Ship Class....33
Table 19: ASW MP USV/RMMV Stowage by Ship Class....35
Table 20: Ship Characteristics and ASW MP Capability Summary....39
Table 21: ASW MP Ordnance....40
Table 22: ASW MP Ship Modification ROM Costs....42
Table 23: Alternate Ship Inventory....45

Table of Figures

Figure 1: MCM Module Alternate Ship Concept....4
Figure 2: MPPCS Concept....5
Figure 3: TCDL Ground Control Station....5
Figure 4: ASW Module Alternate Ship Concept....24
Figure 5: MPPCS Concept....25
Figure 6: TCDL Ground Control Station....25
Figure 7: LCS ship vs Mission Package Deliveries....44

1 INTRODUCTION

1.1 Background

The Fiscal Year 2009 Defense Authorization Senate Armed Services Committee Report 110-35 requested that the Secretary of the Navy submit a report to the Congressional Defense Committees, with the budget request for fiscal year 2010, discussing the employment of the LCS MPs from other ship classes in the battle force. Specifically the report is to outline the feasibility, cost, and impacts associated with integrating mine countermeasures and anti-submarine mission packages on other surface combatant and amphibious force ship classes, and provide an assessment of the operational utility afforded by being able to deploy mission packages across the broader battle force. The LCS and the associated MCM and ASW MPs are essential to the U.S. Navy's future MCM and ASW capability. Each MP consists of Mission Modules (MM) which contain applicable systems, components and equipment to support these systems. Additionally, the MP includes the MP-specific crew and a composite aviation detachment to operate the MH-60R/S and VTUAV.

1.2 Objectives

Congress directed Navy to initiate this assessment to evaluate the feasibility of employing the MCM and ASW MPs from alternate ships. Navy identified alternate ship candidates, assessed the modifications and supplemental equipment that would be required for each candidate, and provided ROM cost estimates. Navy also assessed the operational feasibility and impact of such employment. Lastly, a discussion of the actual delivery timeline of the LCS ships themselves and the mission packages is provided to accurately determine and assess the potential availability of 'idle' mission packages for employment on alternate ships.

1.3 Study Approach and Report Format

The assumption was that all MP elements are co-located on a single ship as they will be when employed on LCS. That is, the entire MP would be installed in an alternate ship rather than break the MP into piece-parts for employment in different ships. The general approach was to develop high-level criteria to screen potential candidates, identify the most promising alternate ship candidates, and conduct a detailed assessment of those candidates that might be feasible.

Section 2 provides the assessment of the MCM MP, while Section 3 provides the assessment of the ASW MP. Each of these sections first provides a description of the mission package to include embarkation footprint, general off-board vehicle launch and recovery requirements, and the types of ship support required. This information was used to develop high-level criteria to screen all of the current and planned ships to determine the

most promising alternate ships for the MCM MP. Following this description is a section which identifies the potential alternate ship candidates, provides a summary of the screening, and identifies ships carried forward for more detailed consideration and assessment. The result of these assessments of alternate ships is then provided. Section 4 consists of a discussion of the timing of the deliveries of LCS ships and MCM and ASW MPs to address the availability of MPs for embarkation in alternate ships. It also discusses the availability of alternative ships. Section 5 contains the study findings and recommendations.

2 MCM MISSION PACKAGE

2.1 Basic Mission Package

This assessment uses the Spiral Alpha MCM MP. The fifth MP delivered (in FY12) is considered the baseline MCM MP as it will be the first complete MP with full production equipment. A MP consists of MCM mission modules, which are comprised of individual mission systems and their support equipment, plus support aircraft and crew. The baseline MCM mission systems consist of:

- Vehicles - one Unmanned Surface Vehicle (USV) and two Remote Multi-Mission Vehicles (RMMV)
- Weapons systems - Rapid Airborne Mine Clearance System (RAMICS) and Airborne Mine Neutralization System (AMNS)
- Sensors - Organic Airborne and Surface Influence Sweep (OASIS), Airborne Laser Mine Detection System (ALMDS), AN/AQS-20A airborne mine sonar detecting system, Coastal Battlefield Reconnaissance and Analysis (COBRA), and Unmanned Surface Sweep System (USSS)
- Aircraft - one MH-60S and one Vertical Take-Off and Landing Tactical Unmanned Aerial Vehicle (VTUAV)
- Support equipment - contained in ten sea and aviation support modules packed in twenty foot equivalent unit shipping containers (TEUs)
- A total mission crew of 38 (MCM Detachment 15/Aviation Detachment 23)

RMMV/USV launch and recovery operations require deck stowage space in the vicinity of a crane with sufficient rated capacity and reach. MH-60S and VTUAV launch and recovery requires a certified ship flight deck. Ideally, a hangar should be available for aircraft stowage and maintenance. General sea and aviation module support requirements include power, interior communications, networks, fuel, potable water, chilled water, salt water cooling, low pressure air and an approved ordnance storage space or weapons magazine.

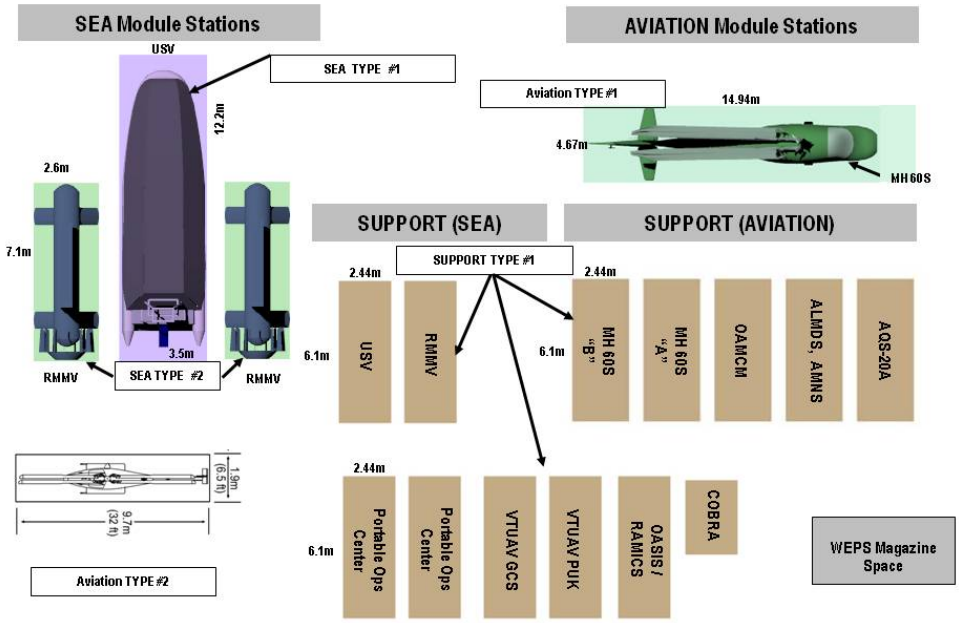


Figure 1: MCM Module Alternate Ship Concept

2.2 Additional Mission Package Components for Other than an LCS

2.2.1 Mission Package Portable Control Station (MPPCS)

LCS is purposely designed to support the mission package computing and operations requirements. A portable capability would be required to support mission package operations from alternate ships. A portable capability to support mission package test and evaluation activities exists today in the form of a MPPCS, denoted in Figure 1 above as "portable ops center." To support operations in any alternative ship it is postulated that this capability would be expanded to a tactically-ruggedized version that would support all mission packages and stand alone mission modules. Figure 2 shows this alternate ship MPPCS concept. The MPPCS containers could be stowed on the weather deck or inside the skin of the ship and would require integration with supporting ship services such as communications, networks and power. Cooling would be provided by package units integral to the containers. Two UHF multi-array, two VHF whip and one Iridium satellite antennas must be placed on the ship's mast or mounted on a top-side container.

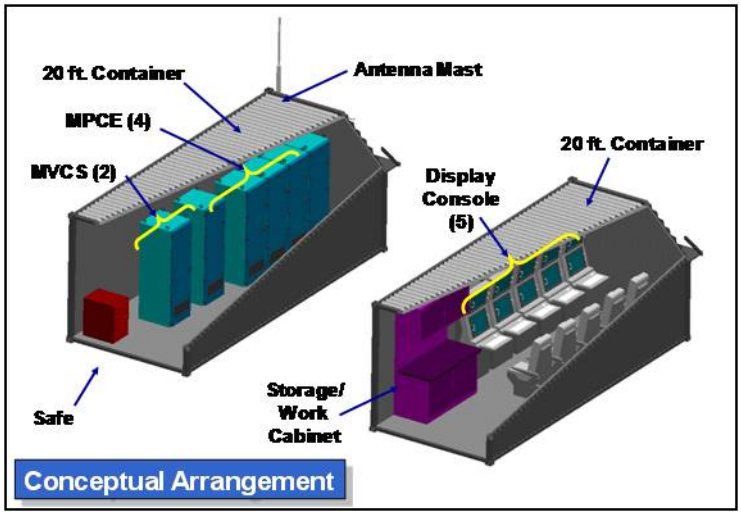


Figure 2: MPPCS Concept

2.2.2 VTUAV Control

LCS is designed to inherently support VTUAV command and control operations. The LCS-based Ground Control Station (GCS) consists of one nineteen-inch external communications rack and two operator consoles, a remote wave-off switch, a UAV Common Automatic Recovery System (UCARS) and a landing grid. A portable capability would be required to support mission package operations from alternate ships. A portable capability to support VTUAV mission package test and evaluation activities from shore sites exists today. Depicted in Figure 3, it performs all the same functions as the shipboard GCS but includes additional hardware for internal communications, GPS, Tactical Common Data Link (TCDL) and environmental control. Any alternate ship would have to provide TCDL antennae, UHF/VHF antennae, navigation input, and power to operate the VTUAV GCS.

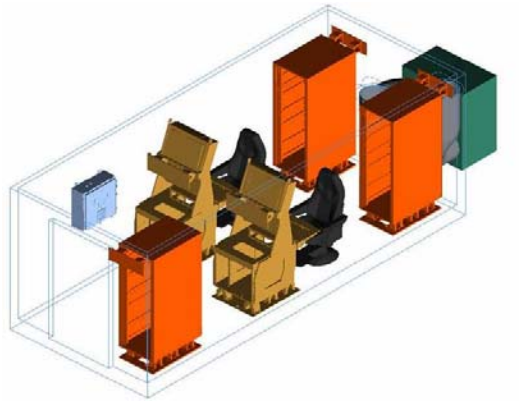


Figure 3: TCDL Ground Control Station

2.2.3 Aviation Mission Module Support

LCS is designed with all of the "hotel and service" support connections (e.g., power, air, water, etc.) required by the mission package in the areas where the various mission modules will be stored and operated. MP operation from another ship will require that the ship provide the required support services to operate the mission package. Table 1 provides a high-level summary of the specific support requirements that need to be accessible in each of the aviation module zones.

Aviation Mission Zones	440VAC 60HZ 3Phase	115VAC 400 HZ	115VAC 60 HZ	28VDC	IC	LAN (C/U)	Chilled Water	Potable Water	SW Cooling	DC Alarms	Work Bench	LP Air	Fuel	Oily Waste
Aviation Operating Zone Service Panel (1,2)	20KW	45KVA	5KW	300A	VOIP	Y/Y								
Aviation Support Zone Service Panel (3,4,5,6,7,8,9,10)	30KW	3KW	15KW		VOIP	Y/Y				Y				
Aviation Operating Zone Resource Station	20KW	45KVA			Voice			Water Wash	10gpm			40 SCFM	JP-5 & Pressure Defuel	
Aviation Support Zone Resource Station			20A		Voice			Hot & Cold			8'x3'	40 SCFM		

Table 1: Aviation Mission Zone Support Requirements

2.2.4 Surface Mission Module Support

Table 2 provides a high-level summary of the specific support requirements that need to be accessible in each of the surface module zones.

Sea Misson Zones	440VAC 60HZ 3Phase	115VAC 400 HZ	115VAC 60 HZ	28VDC	IC	LAN (C/U)	Chilled Water	Potable Water	SW Cooling	DC Alarms	Work Bench	LP Air	Fuel	Oily Waste
Sea Operating Zone Type 1 Service Panel (11)	8KW		10KW	.28KW	VOIP	Y/Y								
Sea Operating Zone Type 2 Service Panel (12, 13)	15KW	20KW	5KW	.28KW	VOIP	Y/Y	10gpm							
Support Zone Service Panel (14, 15)	30KW	3KW	15KW		VOIP	Y/Y				Y				
Sea Operating Zone Resource Station					Voice	-/2	35gpm	Water Wash	10gpm			40 SCFM	JP-5 & DFM	Gravity Defuel
Sea Support Zone Resource Station			20A		Voice			Hot & Cold			8'x3'	40 SCFM		

Table 2: Surface Mission Zone Support Requirements

2.3 Embarkation Footprint

Table 3 summarizes the basic MP embarkation footprint and operational requirements. The projected MP deck space footprint is 6,549 ft^2 (605 $m^{2)}$, which does not include the

MH-60S or VTUAV footprint and spot requirements. This is the rough space required to stow the modules and provide the required access, not including the flight deck spots for the MH-60S and VTUAV. The MH-60S and VTUAV are assumed to be spotted on the flight deck or stowed in the hangar. The module dimensions, module clearance, ordnance and off-board vehicle launch and recovery data were extracted from the Interface Control Document (ICD) for LCS.[1]

		Length (meters)			Width (meters)			Footprint 1 Item No Clearance (meters squared)	Footprint Total Quantity (meters squared)	Total Feet Squared	Weight		
Mission Module (Module #)	Qty	Module	Clearance	Total	Module	Clrnc	Total	M1	M2	FT2	Unit KG	Total KG	STONS
Sea Type 1 (USV) (11)	1	12.2	1.8	14.0	3.6	1.7	5.3	43.9	74.2	799	11443	11443	12.6
Sea Type 2 (RMMV) (12,13)	2	7.1	1.8	8.9	2.6	1.8	4.4	18.5	78.3	843	10325	20650	22.8
Air Type 1 (MH-60S) (1)	1	14.94	1.8	16.7	4.76	1.8	6.56	71.1	109.8	1182	10500	10500	11.6
Air Type 2 (VTUAV) (2)	1	7	1.8	8.8	1.8	1.8	3.6	12.6	31.7	341	1429	1428.8	1.6
Air Support Type 1 (Helo PUK A) (3)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	5909	5909	6.5
Air Support Type 1 (Helo PUK B) (4)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6495	6495	7.2
Air Support Type 2 (VTUAV PUK A) (5)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6697	6697	7.4
Air Support Type 2 (GCS) (6)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	7000	7000	7.7
Sea Support Type 1 (USV Support) (14)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	5856	5856	6.5
Sea Support Type 1 (RMMV Support) (15)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	5822	5822	6.4
Sea Support Type 1 (OAMCM) (7)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6682	6682	7.4
Sea Support Type 1 (ALMDS, AMNS) (8)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6299	6299	6.9
Sea Support Type 1 (AN/AQS-20A) (9)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	7274	7274	8.0
Sea Support Type 1 (RAMICS, OASIS) (10)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	7280	7280	8.0
COBRA	1												
Magazine	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9			4082	4082	4.5
Portable Ops Center	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	424	3900	3900	4.3
Portable Ops Center	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	424	6804	6804	7.5
								339.6	747	8072	113797	124122	137
							Total area required minus acft:		605	6549			

Table 3: MCM MP Embarkation and Operational Requirements

2.4 Alternate Ship Screening Criteria

The optimal alternate ship candidates are those with sufficient capacity to embark the required equipment and personnel, are capable of providing the required module support services with minimal modifications, have at least one certified flight deck spot and hangar, and are capable of launching and recovering the USV and RMMV without the need for special handling equipment. In addition, some ship classes are inherently more suitable based on their design and missions. Rapid transition from a primary mission to a mine countermeasures mission role at the appropriate time would be a significant plus. The study assumes that equipment and personnel embarked for current primary or secondary missions would be debarked as necessary to accommodate the contingency

[1] Interface Control Document (ICD) for the Littoral Combat Ship (LCS) Flight Zero Reconfigurable Mission Systems Baseline 1.2, 11 October 2005.

embarkation of the MP and its crew. The screening criteria used to identify the alternate ships for further assessment are identified in Table 4.

Criteria	A-Adequate	P-Potentially Adequate	I-Inadequate
Embarkation	Space to embark full MP	May require breakdown of modules	Insufficient space
MH-60S Launch/Recovery	1 or more spots	Not Applicable	No flight deck
VTUAV Launch / Recovery	1 or more spots	Not Applicable	No flight deck
MH-60S / VTUAV Hangar	1 or more hangar spots	Potential to erect temporary shelter or portable hangar when needed (PE)	No hangar or portable hangar options
USV Launch/Recovery	L/R using organic systems, ship modification (AM), or additional equipment (AE)	Potential L/R using organic system, ship modification (PM) or additional equipment (PE)	Not capable
RMMV Launch/Recovery			
Mission Flexibility	Flexible and relatively rapid transition	Intermediate flexibility and/or transition	Relatively inflexible and/or slow transition
Ship Combat Systems Integration	No modifications required	Some additional equipment and/or modification to ship required	Significant additional equipment and/or modification to ship required
Operationally Suitable	Suitable ship for MCM mission	MCM mission could be performed but ship is not optimal ship	Not suitable for MCM mission
Alternate Ship Candidate	A-Adequate	P-Potentially Adequate	I-Inadequate

Table 4: MCM MP Screening Criteria

2.5 Alternate Ship Candidates

There are a number of U.S. Navy ships that could potentially satisfy some or all of the screening criteria. All current and future U.S. Navy ship classes were identified using SECNAVINST 5030.8 Classification of Naval Ships and Craft[2] and the FY 2009 Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels.[3] The primary focus was on the "Warship Classification" which includes aircraft carrier, surface combatant, and amphibious warfare ships and the "Other Combatant Classifications" which includes Combat Logistics and Seabasing ships. Table 5 provides the screening results. LCS was included for completeness and is assumed to possess "Adequate" capability, but is the primary, not an alternate ship. The LCC(R) was not assessed due to lack of ship specificity within the shipbuilding plan.

[2] SECNAVINST 5030.8 Classification of Naval Ships and Craft, 21 November 2006.
[3] Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2009, Director, Warfare Integration (OPNAV N8F), Office of the Chief of Naval Operations, February 2008.

Classification	Type	Class	Embarkation	MH-60S L/R	VTUAV L/R	MH-60S / VTUAV Hangar	USV L/R	RMMV L/R	Platform Mission Flexibility	Ship Combat Systems Integration	Operationally Suitable	Alternate Platform Candidate
Warship Classification	Aircraft Carrier	CVN	A	A	A	A	A	A	A	AE/PM	P	Y
	Surface Combatant	CG	I	A	A	A	PM	PM	P	AE/PM	P	N
		DDG 1000	I	A	A	A	PM	PM	P	AE/PM	P	N
		DDG 51	I	A	A	N	PM	PM	P	AE/PM	P	N
		DDG 79	I	A	A	A	PM	PM	P	AE/PM	P	N
		FFG 7	I	A	A	A	I	I	P	AE/PM	P	N
		LCS	A	A	A	A	A	A	A	A	Y	N/A
	Amphibious Warfare	LHA 1	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		LHA 6	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		LHD 1	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		LPD 17	A	A	A	A	A	AE/PM	A	AE/PM	P	Y
		LPD 4	A	A	A	A	A	A	A	AE/PM	P	Y
		LSD 41/49	A	A	A	PE	A	A	A	AE/PM	P	Y
		LCC	PM	A	A	PE	PE/PM	PE/PM	P	AE/PM	N	N
		LCCR	Not Assessed									
Other Combatant Classifications	Combat Logistics	T-AE	P	A	A	A	PM	PM	I	AE/PM	N	N
		T-AFS	P	A	A	A	PM	PM	I	AE/PM	N	N
		T-AO	P	A	A	N	PM	PM	I	AE/PM	N	N
		T-AOE	P	A	A	A	PM	PM	I	AE/PM	N	N
		T-AKE	P	A	A	A	PM	PM	I	AE/PM	N	N
		AS	I	P	P	N	PM	PM	I	AE/PM	N	N
	Sea Basing	JHSV	A	A	A	PM	A	A	A	AE/PM	P	Y
		MPF(F) LHAR/D	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		MPF(F) LMSR	A	A	A	PE	AE/P	AE/P	P	AE/PM	N	Y
		MPF(F) MLP	A	A	A	N	A	AE/PM	A	AE/PM	P	Y

Table 5: MCM MP Alternate Ship Screening

General comments regarding the ship types or classes screened are provided below:

- Aircraft Carrier – Ships have adequate space to embark all elements of the MCM MP and can easily handle the employment of aviation assets. USV and RMMV launch and recovery operations could be conducted off one of the elevators using the organic boat and aircraft crane. Aircraft carriers would require significant modifications to integrate the MCM MP systems with the ship's combat system. Additionally, the aircraft carrier is judged to be only partially operationally suitable because of the risks associated with operating the ship in close proximity to potentially mined waters.
- Surface Combatants – Ships generally do not have sufficient physical space to embark all of the vehicles and support modules. DDG 51 Flights I and II lack a hangar. Davits would need to be installed for the stowage, launch and recovery of the USV and two RMMVs on all with the exception of the FFG 7 class ships, which do not have the space to carry these systems at all. A full assessment would be required to determine if these modifications could be completed without negative impacts in other areas (e.g. stability). Generally, the designs of surface combatants are optimized for their normally assigned missions and they are not particularly flexible for absorbing the complete LCS MCM mission. A new interface would be required to integrate the MCM MP systems with the ship's combat system in all surface combatants. All surface combatants are assessed as

partially operationally suitable to conduct the MCM mission. None of the non-LCS surface combatants were assessed to be optimal candidates.

- Amphibious Warfare – The LCCs have a significant amount of open topside space that could be modified for the stowage of the vehicles and support modules. The LCCs do not have hangars and cranes/davits would need to be provided for the launch and recovery of the USV and two RMMVs. The LSD 41/49 class lacks a hangar. The LHA and LHD have an aircraft crash crane, but it is deemed unsuitable for operational employment of the USV and RMMV, since such operations would entail maneuvering the crane to the deck edge to launch or recover the vehicles. This would effectively curtail other operations and occupy a significant portion of the flight deck during those evolutions. A new interface would be required to integrate the MCM MP systems with the ship's combat system in all amphibious ships. All amphibious ships are assessed as partially operationally suitable to conduct the MCM mission because of the risk to operating those ships in close proximity to potentially mined waters.
- Combat Logistics – Logistics ships generally do not have sufficient space to embark all of the vehicles and support modules. The TAO and AS lack hangars. Replenishment staging areas in some classes of ships may provide sufficient space to stow module equipment, but probably not in the support containers. Additionally, storing modules in these areas would impact the vessels primary mission of logistic support by eliminating the staging areas that allow these vessels to break out items and position them for rapid transfer during replenishment operations. Cranes or davits would be required to launch and recover the USV and two RMMVs. These modifications could also adversely impact underway replenishment capabilities. Combat logistics ships are optimized for underway replenishment or repair and were assessed to be relatively inflexible. A new interface would be required to integrate the MCM MP systems with the ship's combat system in all combat logistics ships. All combat logistics ships are assessed as not operationally suitable to conduct the MCM mission because of the risk to operating those ships in close proximity to potentially mined waters. None of these ships were assessed to be optimal candidates.
- Sea Basing - Ships generally do have sufficient space to embark all of the vehicles and support modules. The JHSV, LMSR and MLP lack hangars. Cranes or davits would be required to launch and recover the USV and two RMMVs on all but the JHSV. Sea Basing ships are optimized to store and carry equipment and are flexible enough to support the MCM mission with the exception of the LMSR. All sea basing ships are assessed as partially operationally suitable to conduct the MCM mission with the exception of LMSR, which is not suitable. None of these ships were assessed to be optimal candidates.

The final column of Table 5 contains the overall screening for each ship class. The ship classes that are not viable alternate ship candidates are identified with an N (No) and the ship classes that are viable alternate ship candidates are identified with a Y (Yes). Viable

alternate ship classes are CVN, LHA 1, LHA 6, LHD 1, LPD 17, LPD 4, LSD 41/49, JHSV, MPF(F) LHA(R)/LHD, MPF(F) LMSR and MPF(F) MLP. These ship classes are further assessed in greater detail below.

2.6 Detailed Assessment of Potentially Suitable Candidates

2.6.1 Ship Support Requirements

The LCS concept is centered on reconfigurable mission modules. The mission module equipment is operated and supported in mission zones aboard ship. The zones applicable to the MCM MP are the Aviation Operating Mission Zone, Aviation Support Mission Zone, Sea Operating Mission Zone, and Sea Support Mission Zone.[4] Mission modules must be stowed in appropriate locations and have access to a service panel for utilities. In addition to the service panels, a stand-alone resource station is required for each mission zone. Alternate ships must be capable of emulating the functions of these mission zones.

2.6.1.1 Aviation

The LCS Aviation Operating Mission Zone consists primarily of the flight deck while the Aviation Support Mission Zone consists primarily of the hangar. All of the potentially suitable ships have an appropriate flight deck; however several classes do not have a hangar. The aviation equipment includes one MH-60S module, one VTUAV module and the eight support modules discussed below.

Many of the aviation operating and support zone requirements can be met by aircraft carriers and other ships capable of supporting MH-60S servicing and operations. The amount of support varies however as some of these ships do not have a hangar or maintenance facilities. Table 6 provides information on the projected operations support, service, maintenance, hangar and operating spots for each of the candidate ships in Table 5.

[4] Interface Control Document (ICD) for the Littoral Combat Ship (LCS) Flight Zero Reconfigurable Mission Systems Baseline 1.2, 11 October 2005.

Ship Class	Day/Nite/IMC Ops	Service	Maintenance Facilities	Hangar	Spots
CVN	Yes	Full	Yes	Yes	Many
LHA/LHD	Yes	Full	Yes	Yes	6
LPD 4	Yes	Full	No	Yes	2/4
LPD 17	Yes	Full	No	Yes	2/4
LSD 41/49	Yes	Limited	No	No	2
JHSV	Yes	Full	No	No	1
MPF(F) LHAR/D	Yes	Full	Yes	Yes	6
MPF(F) LMSR	Yes	Full	No	No	2
MPF(F) MLP	Yes	Full	No	No	1

Table 6: Ship Aviation Facilities

Aircraft carriers and LHA/LHD class ships provide the capability to operate in day and night operations, and instrument meteorological operations. Furthermore, they provide a landing area with support (service and maintenance) facilities and generate numerous helicopter operating spots depending on other aircraft requirements. The LHA and LHD have nine operating spots, typically six of which are manned simultaneously. The LPDs provide similar capability but have no maintenance facilities. LPDs have 2 large spots or 4 smaller expanded spots for small aircraft. It is postulated that the ships without hangars could be augmented with a portable shelter or temporary hangar, if needed. A portable shelter is a relatively light structure that is only erected when needed to shelter the aircraft during maintenance. A temporary hangar is a more durable structure that is erected in the forward spot of multiple spot ships upon MP embarkation. JHSV design includes a protected parking space forward of the operating spot that can accommodate an MH-60 size aircraft. This could potentially be enclosed to provide a temporary shelter.

MCM aviation mission modules are included in Table 3. Module station (1) is the MH-60S and module station (2) is the VTUAV, both of which are stowed on the flight deck or in the hangar. The eight support modules must be stowed in areas accessible to the flight deck: (3,4) MH-60S pack-up kits; (5) VTUAV pack-up kit; (6) VTUAV GCS; (7) Organic Airborne Mine Countermeasures (OAMCM); (8) Airborne Laser Mine Detection System (ALMDS) and Airborne Mine Neutralization System (AMNS); (9) AQS-20 Mine Hunting Sonar; and (10) Organic Airborne and Surface Influence Sweep (OASIS) and Rapid Airborne Mine Clearance System (RAMICS).

Table 1, shown earlier, provides a high-level summary of the specific support requirements that need to be accessible in each of the aviation module zones. The preliminary assessment is that these requirements could be satisfied by each candidate ship, with the possible exception of the JP-5 pressure defuel. Power, interior communication, local area network, potable water, salt water cooling, and low pressure air systems may need to be

modified from current distribution points to service panels or resource stations co-located with the modules in some ship classes.

The large deck aviation ships and LPDs would require the fewest modifications to accommodate the aviation modules. JHSV will have six Mission Deck Modular Interface Panels with six types of power and classified/unclassified local area network drops and six service panels with potable water and compressed air in the mission bay.[5,6]

2.6.1.2 Sea

The Sea Operating Mission Zone provides access to launch/recover, test and service the USV and RMMV vehicles. The Sea Mission Support Zone provides area(s) to conduct maintenance. The vehicles must be stowed in davits, cradles or skids in areas accessible by a suitable crane or other launching device, or trailers/cradles that can be easily moved to such areas.

2.6.1.2.1 Launch and Recovery

The potential Sea Operating Mission Zone locations are a function of basic ship design and the equipment installed - or can be embarked - to support the launch/recovery of vehicles weighing up to 22,369 lbs (10,140 kg). Table 7 provides a summary of the most likely launch/recovery options for the ship classes under consideration.

Launch & Recovery	Flight Deck				Elevator Boat Deck Mission Bay Boat Davit	Welldeck / LCAC Lane (LCAC not embarked)			**New Equip. Required**
Equipment	CVCC AACC	Crane	**Crane**	**Davit**	Crane Davit	Sterngate	**Sterngate Ramp**	**Crane**	
	Organic		**New**	**New**	Organic	Organic	**New**		
CVN	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV				**No**
LHA 1	USV/RMMV		USV/RMMV	USV/RMMV				USV/RMMV	**Yes**
LHD 1	USV/RMMV		USV/RMMV	USV/RMMV		USV	USV/RMMV		**Yes**
LHA 6	USV/RMMV		USV/RMMV	USV/RMMV					**Yes**
LPD 4		USV/RMMV	USV/RMMV	USV/RMMV	USV/RMMV	USV	USV/RMMV		**No**
LPD 17			USV/RMMV	USV/RMMV	USV	USV	USV/RMMV		**Yes**
LSD 41/49		USV/RMMV	USV/RMMV	USV/RMMV	USV	USV	USV/RMMV		**No**
JHSV					USV/RMMV				**No**
MPF(F) LHAR	USV/RMMV		USV/RMMV	USV/RMMV					**Yes**
MPF(F) LHD	USV/RMMV		USV/RMMV	USV/RMMV		USV	USV/RMMV		**Yes**
MPF(F) LMSR			USV/RMMV	USV/RMMV	USV/RMMV				**Yes**
MPF(F) MLP					USV			USV/RMMV	**Yes**

Table 7: MCM MP USV/RMMV Launch and Recovery by Ship Class

[5] JHSV Performance Specification, NAVSEA 05, 8 August 2007.

[6] Austal USA JHSV brochure, www.austal.com

Aircraft Carrier Crash Cranes (CVCC) or Amphibious Assault Ship Crash Cranes (AACC) are required for large deck aviation ships. These cranes have sufficient lift capacity and reach to launch and recover a USV/RMMV over-the-side of the flight deck. However, the crane booms are fixed (not trainable) resulting in relatively cumbersome and time consuming maneuvering for over-the-side crane operations. These cranes may not be suitable for frequent USV/RMMV launch and recovery. CVNs have a 50,000 lb (22,680 kg) capacity boat and aircraft crane on the starboard side just aft of the aft elevator that could support USV/RMMV launch/recovery from the elevator. The LPD 4 and LSD 41/49 classes have boat and aircraft cranes that can support USV/RMMV over-the-side operations from the forward portion of the flight deck. The LPD 17 should be capable of stowing the USV in one of the 11 meter boat skids and launch/recover the USV using the knuckle-boom crane. However, the specific configuration of the USV could require replacement of the skid to match the USV hull form. JHSV is required to accommodate a sling hook height of 19.5 ft (5.94 m) and boats up to 40.4 feet (12.32 m) length, 9.0 ft (2.74m) width, 8.92 ft (2.72 m) height and 25,000 lbs (11,339.81 kg) weight.[7] The USV exceeds the width and height limits and RMMV exceeds the height limits. However, the ship should still be capable of launching and recovering both vehicles provided suitable slings can be provided. The LMSRs will have one single pedestal mounted 112 long-ton crane that will access the main weather deck and flight deck areas.[8] This crane may not be suitable for the launch and recovery of the USV and RMMV.[8] The MLP specification calls for two 11 meter rigid-hull inflatable boat davits, one of which could potentially be made available for the USV.[9] However, there are no details on the weight of the rigid-hull inflatable boats or minimum boat davit capacity.

All of the ship classes with two or more helicopter operating spots might be capable of supporting a new design crane or davits that would be embarked with the surface modules. The crane or davits could be secured along the flight deck edge to support over-the-side operations. Permanent RMMV davits such as the one installed in USS BAINBRIDGE (DDG 96) would have to be installed on specific ships.

The amphibious ship well decks and MLP LCAC lanes provide a significant amount of protected space when LCACs are not embarked. Navy has experience launching trailer stowed boats and combat rubber raiding craft from these well decks. The launch/recovery of a USV from a well deck should be relatively straightforward. The launch/recovery of a RMMV from a well deck would require special equipment such as a mobile crane or a ramp or sled mounted to the well deck or sterngate. A suitably designed ramp or sled would be preferable to over-the-side crane or davit operations and might provide an option for employing the USV/RMMVs from multiple MPs.

[7] JHSV Performance Specification, NAVSEA 05, 8 August 2007.
[8] MPF(F) Program of Record (POR) Squadron Concept Overview briefing, 2 July 2007.
[9] MLP Performance Specification, NAVSEA 05

2.6.1.2.2 Stowage

The primary surface vehicle stowage location options are the flight decks of multiple spot ships, large deck aviation ship hangar bays, the vehicle decks and mission bays, and the well deck or LCAC lanes for ships so configured. The vehicles could also be stowed in new permanently installed davits, if equipped. Table 8 provides a summary of the primary vehicle stowage options for the ship classes of interest.

Stowage Location	Flight Deck	Hangar Bay	Boat Deck Boat Davit	**New Davit**	Vehicle Decks Mission Bay	Well Deck LCAC Lane
CVN	USV/RMMV	USV/RMMV		USV/RMMV		
LHA 1	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV
LHD 1	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV
LHA 6	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	
LPD 4	USV/RMMV	USV/RMMV	USV	USV/RMMV	USV/RMMV	USV/RMMV
LPD 17	USV/RMMV	USV/RMMV	USV	USV/RMMV	USV/RMMV	USV/RMMV
LSD 41/49	USV/RMMV		USV	USV/RMMV	USV/RMMV	USV/RMMV
JHSV				USV/RMMV	USV/RMMV	
MPF(F) LHAR	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	
MPF(F) LHD	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV
MPF(F) LMSR	USV/RMMV			USV/RMMV	USV/RMMV	
MPF(F) MLP			USV	USV/RMMV	USV/RMMV	USV/RMMV

Table 8: MCM MP USV/RMMV Stowage by Ship Class

Ideally, the surface vehicles (Modules 11, 12, and 13 as listed in Table 3) would be stowed in the vicinity of the support modules (14 and 15) and, if possible, protected from the weather. Stowage in a hangar bay, vehicle deck, mission bay or well deck area would require relocation of the vehicle and trailer/cradle to the launch position (e.g. flight deck, aft end of mission bay, etc.) prior to launching.

Table 2 shown earlier provides a high-level summary of the specific support requirements that need to be accessible in each of the surface module zones. The preliminary assessment is that these requirements could be satisfied by each candidate ship. Power, interior communication, local area network, potable water, salt water cooling, and low pressure air may need to be run from current distribution points to service panel or resource stations co-located with the modules in some ship classes.

2.6.1.3 Mission Package Operations

The planning and execution of MH-60S, VTUAV, USV and RMMV missions requires additional equipment that is not included in the basic MCM MP. This includes pre-mission planning, UHF/VHF communication with the MH-60S and VTUAV, remote control of the USV/RMMV and post-mission analysis of data. Some of these functions are provided by the host ship while others would be provided by the MPPCS. A VTUAV GCS must be embarked to provide sufficient control of the VTUAV that cannot be provided by any of the host ships.

2.6.1.3.1 Mission Package Portable Control Station (MPPCS)

Figure 2 provides a notional MPPCS configuration. The system includes two containers that could be stowed on the weather deck or inside the skin of the ship and would require integration with ship services such as communications, networks and power. Cooling would likely be provided by package units integral to the containers. Two UHF multi-array, two VHF whip and one Iridium satellite antennas must be placed on the ship's mast or mounted on a top-side container. MPPCS power and other service requirements have not been formally identified. The estimated MPPCS power requirement is 70 KW.

2.6.1.3.2 VTUAV Ground Control Station

Figure 3 provides a notional GCS configuration. The MPPCS does not include a Tactical Common Data Link (TCDL) terminal for VTUAV or two processing/radio cabinets and Post-Mission Analysis (PMA) workstations. The GCS performs all the same functions as the LCS GCS but includes additional hardware for internal communications, GPS, Tactical Common Data Link (TCDL) and environmental control. Any alternate ship would have to provide TCDL antennae, UHF/VHF antennae, navigation input, and power to operate the VTUAV. GCS power and other service requirements have not been formally identified. The ship would provide the VTUAV GCS components with 115 VAC, 60-hertz single phase power and shall meet the requirements in MIL-STD-1399C, Section 300, for Type 1 electrical power systems. The ship would size power service capable of powering Uninterrupted Power Supplies (UPS) capable of providing 2 KVA for each console rack and 5 KVA for the External Communications (EXCOMMS) rack.

2.6.1.4 Mission Planning and Execution

All of the candidate ships appear to have sufficient space to embark the MPPCS and additional VTUAV support containers as necessary to establish the required capabilities.

- Aircraft UHF/VHF communications are provided by the host ship. All ships certified Level 1 will be able to activate and operate at least a land/launch frequency. USV/RMMV control is provided by the MPPCS.
- Pre-mission planning will be conducted in the MPPCS and ship spaces that may be available. All of the candidate ships have one or more operations spaces that could potentially support these functions. The spaces may not be available if the ship is a shared vice dedicated asset.
- Post-mission analysis will be executed onboard for all sensors and interface to Mine Warfare Environmental Decision Aids Library (MEDAL). This may be part of the MPPCS or organic to the ship. The interface with MEDAL can be achieved through any ship via Global Command and Control System-Maritime (GCCS-M), provided suitable connections are made.
- Compatibility of module data processing and analysis software with currently fielded ship systems may lead to identification of existing command and control systems onboard current potential host ships that can provide some of the

USV/RMMV requirements. For example, software loads on existing Integrated Shipboard Network System (ISNS) servers with desktop/laptop LAN drops in existing command and control spaces may be possible.

2.6.1.5 Operational Suitability

All of the potential candidate ships are considered only partially operationally suitable to conduct the MCM mission for a variety of reasons. Although the employment CONOPS calls for the ships to operate outside of known mine danger areas, there is always some risk of encountering a mine. While capable of conducting the MCM mission with the MCM MP embarked, the CVN and amphibious ships would not routinely be operated in areas near suspected mining. They might be suitable however for conducting near-land MCM operations where there was a limited anti-access threat capability (for example, clearing a mined port in a fairly benign threat environment). The nature of airborne MCM operations would require use of the flight decks that would impact otherwise necessary and essential flight operations for primary missions. Likewise, surface MCM operations conducted with the MCM MP would require these ships to dedicate flight deck and/or well deck capacity to accommodate the MCM mission. Surface MCM operations would also restrict maneuverability and agility of these critical assets, especially during launch and recovery evolutions. The JHSV may be a suitable ship; however it would necessarily have to sacrifice its primary mission in order to conduct MCM operations. Additionally, JHSV has no real self defense capability and essentially no survivability should it hit a mine. The MPF ships are not combat oriented ships and as such would not be operationally suited to conducting MCM operations. In most cases they would be preloaded with equipment and essential warfighting material and would have to be diverted from their principal mission to support MCM operations.

2.6.1.6 Other Considerations

The previous sections provided information on the stowage, launch, recovery and operation of the mission modules. There are several other factors that should be considered in assessing alternate ships.

- Degaussing –A degaussing system is included in one of the two LCS designs as well as the CVN, LHA/LHD, LPD 4, LPD 17, LSD 41/49, and MPF(F) LHD ship classes to provide some level of protection in the presence of mines. The MPF(F) LHA(R) may not be equipped with a degaussing system and there is no requirement for degaussing systems in JHSV, LMSR and MLP.
- Shock Hardening – A shock hardened ship would be more survivable in the event of a mine detonation. The CVN, LHA/LHD, LPD 4, LPD 17, LSD 41/49, and MPF(F) LHD ship classes are shock hardened. The MPF(F) LHA(R) may not be as shock hardened as the amphibious version of the ship. JHSV, LMSR and MLP are not required to be shock hardened.
- Self Defense – The JHSV and MPF(F) ships will have crew-served weapons, but will not have robust self-defense systems comparable to those installed in the

combatants. These ships would either require escorts or be provided some increased level of self defense, probably through installation of a modification package, when operating in a threat environment.

- Material Handling Equipment – The LCS design includes either installed or portable equipment to lift and transport mission module components internally, as required. The alternate ship candidates have limited installed capabilities to perform this same task. However, each ship will have material handling equipment such as fork-lifts that could support the movement of most internal module components. The movement of USVs and RMMVs from stowage to launch locations would likely require trailers or cradles with wheels and a fork-lift or tractor to tow the vehicle. The ability to tow vehicles up and down ship ramps would help maximize the use of space and existing services.
- Ordnance Stowage – The MCM MP ordnance load consists of 1500 rounds of 30 mm ammunition for RAMICS, 24 AMNS neutralization charges, and 20 helicopter cable cutters. The CVN, LHA/LHD, LPD 4, LPD 17, LSD 49 and MPF(F) LHA(R)/LHD ship classes have substantial cargo ordnance magazines. The LSD 41 has a much smaller magazine capacity while JHSV and MLP have no cargo magazines. The ordnance load must be assessed for compatibility with the ship-fill, Landing Force Operational Reserve Material (LFORM) and cargo ordnance that is normally stowed in these ships. Portable magazine modules could potentially be used for the JHSV, MLP, and LSD 41 (if required), but would require Weapon System Explosives Safety Review Board (WSESRB) waivers to do so.
- Module Tie Downs – Twist lock is the preferred method to secure modules and vehicle cradles to the deck. The candidate ships typically use aircraft tie-down sockets/chains or Peck and Hale cloverleafs/lashings. The module containers should be compatible with all three securing methods. The use of tie-downs and gripes could increase the amount of space required to secure the modules. JHSV will have six TEU positions that accommodate the twist lock design.[10]
- Service Interfaces – The LCS Interface Control Document identifies the specific connectors that are required to support each mission module to include power, data, air, salt water cooling, fueling, defueling, etc. Not all of the connectors are standardized across the fleet. The development of portable service panels with the standard connections on one side and connections available on a specific ship class on the other side may be required.

2.6.2 Ship Summary

All of the alternate ship candidates were assessed as capable of supporting the MCM MP given varying levels of investment in supplemental equipment. Table 9 provides a

[10] JHSV Performance Specification, NAVSEA 05, 8 August 2007.

summary of the projected ship inventory, displacement, total berthing, and MP embarkation and employment related considerations.[11] The displacement and berthing provide an indication of the potential risk associated with employment of the ship in an MCM role.

A check mark (✓) indicates an organic capability while a dollar sign ($) indicates that some level of investment would be needed to meet the requirement. A question mark (?) indicates an unknown based on the available documentation. For example, the LSD 41/49 class ships are capable of MH-60S operations but do not have a hangar. Investment in a temporary shelter or portable hangar would be necessary to achieve the full requirement. The surface investment requirement refers to cranes, davits or well deck ramps/sleds for the launch/recovery of surface vehicles. All of the ships will require some level of investment to make the required mission module service connections and combat systems integration modifications.

Ship Class	Displacement Long Tons	Total Berthing	Aviation	Surface	Service Connections	Ship Combat Systems Integration	Self-Defense	Shock Hardened
CVN	86,606	5,680	✓	✓	$	$	✓	✓
LHA 1	39,400	2,864	✓	$	$	$	✓	✓
LHD	40,681	2,973	✓	$	$	$	✓	✓
LHA 6	44,971	2,930	✓	$	$	$	✓	✓
LPD 4	17,000	1,320	✓	✓	$	$	✓	✓
LPD 17	24,900	1,160	✓	$	$	$	✓	✓
LSD 41	15,939	917	$	✓	$	$	✓	✓
LSD 49	16,708	923	$	✓	$	$	✓	✓
JHSV (Navy)	1,400	145	$	✓	$	$	N/A	N/A
MPF(F) LHD	40,681	2,705	✓	$	$	$	N/A	✓
MPF(F) LHAR	44,971	2,612	✓	$	$	$	N/A	?
MPF(F) LMSR	56,512	850	$	$	$	$	N/A	N/A
MPF(F) MLP	46,297	922	$	$	$	$	N/A	N/A

Table 9: Ship Characteristics and MCM MP Capability Summary

[11] CVN and amphibious ship displacement/berthing numbers based on information extracted from United States Navy Fact File at navy.mil. MPF(F) data based on the MPF(F) Capability Development Document and notional concepts identified in MPF(F) Program of Record (POR) Squadron Concept Overview briefing, 2 July 2007.

2.7 Cost Estimates

The development of a detailed cost estimate would necessitate refinement of the requirements, development of notional load plans, and the identification and pricing of specific required equipment and modifications. The findings discussed previously point to those major equipment and/or modifications necessary for different alternate ships to be made suitable for MCM MP employment. The table above summarizes those areas where there would be a cost incurred to accomplish those modifications and procure certain equipment. Costs for developing and procuring similar items were identified where appropriate. These are ROM estimates only and, as such, are subject to considerable revision pending a more rigorous and detailed site survey. The following are the major cost drivers for MCM MP employment. There would be other costs incurred that are not estimated here. These include the cost to install a MH-60 JP-5 pressure defueling station for those ships that do not have that capability.

2.7.1 Aviation Operations

2.7.1.1 VTUAV GCS

All potential ships would require a VTUAV GCS (described previously) and provide TCDL antennae, UHF/VHF antennae, navigation input, and power to operate the VTUAV GCS. A suitable GCS has been developed and was recently installed on a surface combatant. The cost for a single VTUAV GCS and installation on a ship is estimated to be $8.4M ($5M for GCS; $3.4M for installation).

2.7.1.2 Portable ordnance magazines

JHSV and MLP do not have permanent ordnance magazines and LSD 41 does not have an ordnance magazine suitable to hold the ordnance required for the MCM MP (shown in Table 10). There are currently no temporary or portable ordnance magazines that are suitable or certified for shipboard operational use. It is postulated that ROM development costs for a TEU-size portable magazine incorporating the required hookups for an alarm, fire suppression, locks, monitors and integration with the host ship would be $1.5M. ROM production costs for each magazine are $750K. The MCM MP would require at least two such magazines due to the need to separate the AMNS neutralization charges from the other ordnance.

30 mm rounds for RAMICS	1500 Rounds
AMNS Neutralization Charges	24
Helo cable cutter	20

Table 10: MCM MP Ordnance

2.7.1.3 Aviation hangar

Ideally, the MH-60S and VTUAV would have a hangar so that necessary maintenance could be accomplished out of the weather. Erecting a temporary hangar / shelter for JHSV,

LSD 41/49, MPF(F) MLP might suffice for this. The JHSV design includes a protected parking space forward of the operating spot that can accommodate an MH-60 size aircraft. It is estimated that this area could potentially be enclosed to provide a temporary hangar. The ROM estimate for a basic cover is $1M. The estimate for a more suitable cover that would provide enough material strength to support lifting a helicopter rotor head or engine is $2M. LSD 41/49 and MLP class ships would require a different approach. There is nothing in the U.S. Navy inventory that could be modified to meet the shelter needs on these two ships. There are custom made commercial shelters available. These tension membrane structures consist of a high-impact and resistant 28oz PVC fabric over a stainless steel frame. Some of these are in use in the commercial shipping industry to shelter topside equipment and even helicopters. A ROM estimate for such a structure that would enclose an MH-60S helicopter is $200K, including installation.

2.7.2 Surface Operations

2.7.2.1 Movement of USV and RMMV from stowage to launch locations

The General Dynamics version of LCS employs a unique straddle carrier for movement of the USV and RMMV from storage to launch and recovery positions. This system could be employed on alternate ships. Costs for one of these carriers would be $450K each.

2.7.2.2 Cranes and boat davits

New cranes and boat davits would likely be required to launch USV & RMMV on all MPF(F) ships and would be optimal for all alternative ships (CVN and all amphibious warfare ships) . JHSV would likely need new boat davits; the crane they have will probably work. The ROM cost for new cranes and boat davits is $3M.

2.7.2.3 Well deck launch of RMMV

One alternative to employing RMMV from the amphibious warfare ships that have a well deck is to launch and recover them from there. Such a system would have to be specifically manufactured and installed for each individual ship class so that the RMMV could clear the stern gate when launched with its antenna in the deployed position. An installation of gantry cranes or skids would also have to be made such as to not impede normal well deck operations for launching LCACs (the primary mission). An estimated ROM cost for such a system is $2M.

2.7.3 Other costs

2.7.3.1 Mission Package Portable Control Station (MPPCS)

An MPPCS will be necessary to operate the MCM MP from any alternate ship. Expanding the existing MPPCS used for testing purposes to a full tactically-ruggedized operations center is estimated to cost $2M each. Additionally, the host ship (alternative ship) would be required to provide interfaces with ships services addressed above.

2.7.3.2 MP Service Panels

The development of portable service panels with the standard connections on one side and connections available on a specific ship class on the other side may be required for any alternative ship. These would include connections or interfaces for power, interior

communication, local area network , potable water, salt water cooling, and low pressure air. These services may need to be run from current distribution points to service panels or resource stations co-located with the modules in some ship classes. It would also include overhead cableway and fueling systems modification for those ships that would require it. The ROM cost for this ranges from $206K to $271K.

2.7.3.3 Interface with ship's combat system.

As the MP is specifically designed to integrate with the combat system on LCS, integration of the mission package with an alternate ship's combat system would entail additional costs. The ROM cost for this is $1M.

2.7.3.4 Degaussing

Degaussing provides some protection against mines on all of the potential alternatives with the exception of JHSV, LMSR and MLP. Degaussing equipment consists of control systems, energizers and a significant amount of cabling that must be run through nearly every compartment on the ship. Degaussing systems are normally built into a ship from the beginning. It is estimated that the ROM cost to retrofit a single JHSV with degaussing is $5M. Similar costs would be expected to add degaussing into the design of LMSR and MLP.

2.7.4 The total ROM cost estimate to modify the various alternate ships to employ the MCM MP is shown in Table 11.

MODS	VTUAV GCS	Ordnance Magazines	Hangar	USV & RMMV Movement	Cranes & boat davits	Well deck RMMV launch	Service Panels	Portable Ops Center (TEUs +antennas)	Interface w/Ship's Weapons System	Degausing	TOTAL COSTS
SHIPS											
CVN	$8.4M	N/A	N/A	$450K	$3M	N/A	$206K	$2M	$1M	N/A	$15M
LHA 1	$8.4M	N/A	N/A	$450K	$3M	$2M	$271K	$2M	$1M	N/A	$17.1M
LHD	$8.4M	N/A	N/A	$450K	$3M	$2M	$206K	$2M	$1M	N/A	$15M
LHA 6	$8.4M	N/A	N/A	$450K	$3M	N/A	$206K	$2M	$1M	N/A	$15M
LPD 4	$8.4M	N/A	N/A	$450K	$3M	$2M	$206K	$2M	$1M	N/A	$15M
LPD 17	$8.4M	N/A	N/A	$450K	$3M	$2M	$206K	$2M	$1M	N/A	$15M
LSD 41	$8.4M	$3M	$200K[1]	$450K	$3M	$2M	$206K	$2M	$1M	N/A	$20.3M
LSD 49	$8.4M	N/A	$200K[1]	$450K	$3M	$2M	$206K	$2M	$1M	N/A	$17.3M
JHSV (Navy)	$8.4M	$3M	$2M[2]	$450K	$3M	N/A	$271K	$2M	$1M	$5M	$25.1M
MPF(F) LHD	$8.4M	N/A	N/A	$450K	$3M	N/A	$206K	$2M	$1M	N/A	$15M
MPF(F) LHAR	$8.4M	N/A	N/A	$450K	$3M	N/A	$271K	$2M	$1M	N/A	$15.1M
MPF(F) LMSR	$8.4M	N/A	N/A	$450K	$3M	N/A	$271K	$2M	$1M	$5M	$20.1M
MPF(F) MLP	$8.4M	$3M	$200K[1]	$450K	$3M	N/A	$206K	$2M	$1M	$5M	$23.3M

[1] This is for a fabric over stainless frame shelter with doors. There would be no structural ability to support lifting an engine
[2] This encloses the parking area on JHSV and provides the structure to support lifting an engine or rotor head
N/A (Not Applicable)

Table 11: MCM MP Ship Modification ROM Costs

3 ASW MISSION PACKAGE

3.1 Basic Mission Package

This assessment uses the Spiral Alpha ASW MP. The third MP delivered (in FY13) is considered the baseline ASW MP as it will be the first complete MP with full production equipment. A MP consists of ASW mission modules, which are comprised of individual mission systems and their support equipment, plus support aircraft and crew. The baseline ASW mission systems consist of:

- Vehicles - two Unmanned Surface Vehicles (USV) and two Remote Multi-Mission Vehicles (RMMV)
- Sensors –The RMMVs are platforms for an RMMV Towed Array (RTA) and an RMMV Towed Acoustic Source (RTAS). The USVs are platforms for a Multi-Static Off-Board Source (MSOBS), a USV Towed Array System (UTAS) and a USV Dipping Sonar (UDS). The MH-60R is a platform for Airborne Low Frequency Sonar (ALFS), sonobuoys, sonobuoy processing, and Automatic Radar Periscope Detection and Discrimination (ARPDD)
- Weapons – 12 MK 54 torpedoes
- Aircraft - one MH-60R and two Vertical Take-Off and Landing Tactical Unmanned Aerial Vehicles (VTUAV)
- Support equipment - contained in ten sea and aviation support modules packed in twenty foot equivalent unit shipping containers (TEUs)
- A total mission crew of 38 (ASW Detachment 15/Aviation Detachment 23)

RMMV/USV launch and recovery operations require deck stowage space in the vicinity of a crane with sufficient rated capacity and reach. MH-60R and VTUAV launch and recovery requires a certified ship flight deck. Ideally, a hangar would be available for aircraft stowage and maintenance. General sea and aviation module support requirements include power, interior communications, networks, fuel, potable water, chilled water, salt water cooling, low pressure air and a weapons magazine storage space.

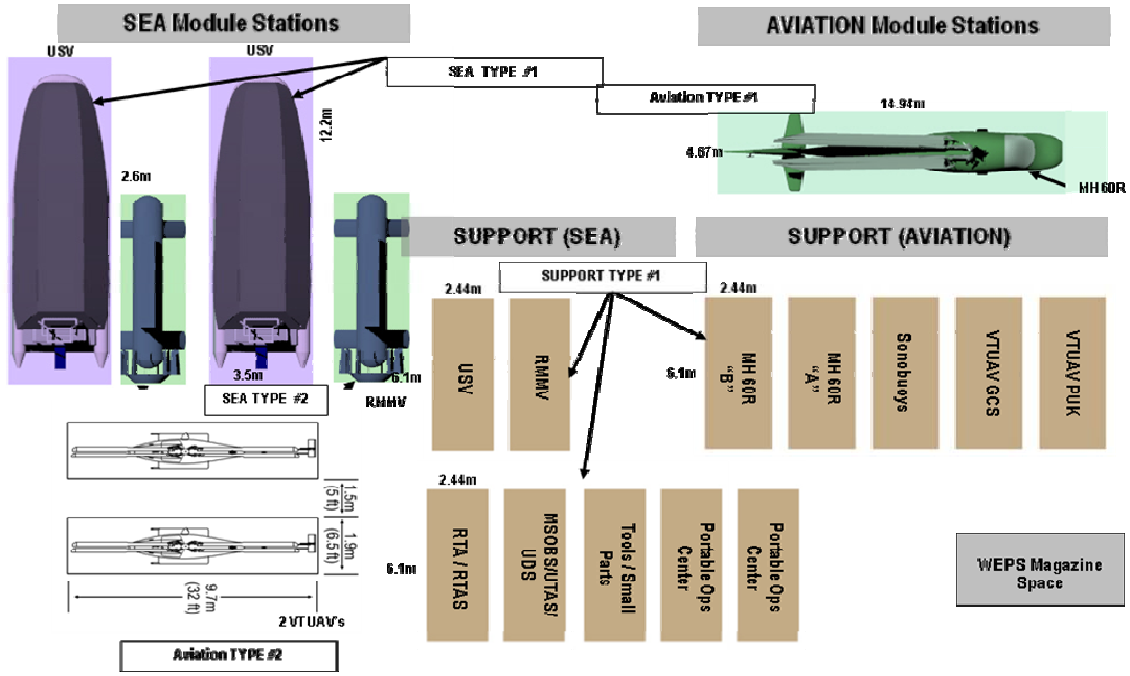


Figure 4: ASW Module Alternate Ship Concept

3.2 Additional Mission Package Components for Other than an LCS

3.2.1 Mission Package Portable Control Station (MPPCS)

LCS is purposely designed to support the mission package computing and operations requirements. A portable capability would be required to support mission package operations from alternate ships. A portable capability to support mission package test and evaluation activities exists today in the form of a MPPCS, denoted in Figure 4 above as "portable ops center." To support operations in any alternative ship it is postulated that this capability would be expanded to a tactically-ruggedized version that would support all mission packages and stand alone mission modules. Figure 5 shows this alternate ship MPPCS concept. The MPPCS containers could be stowed on the weather deck or inside the skin of the ship and would require integration with supporting ship services such as communications, networks and power. Cooling would be provided by package units integral to the containers. Two UHF multi-array, two VHF whip and one Iridium satellite antennas must be placed on the ship's mast or mounted on a top-side container.

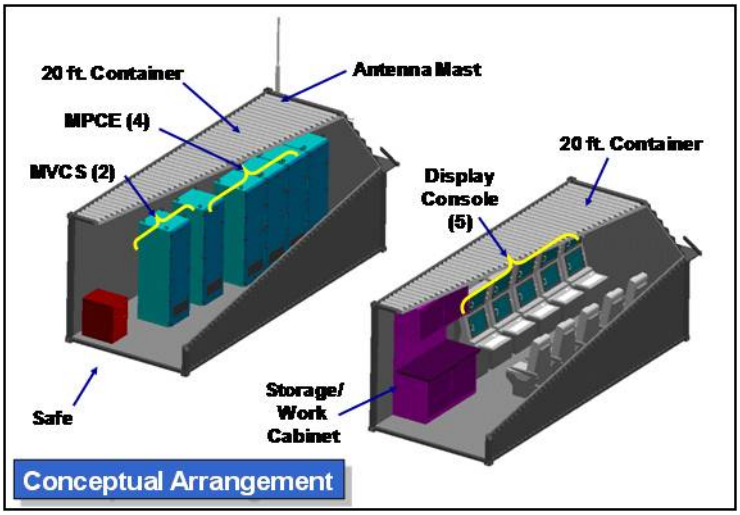


Figure 5: MPPCS Concept

3.2.2 VTUAV Control

LCS is designed to inherently support VTUAV command and control operations. The LCS-based Ground Control Station consists of one nineteen-inch external communications rack and two operator consoles, a remote wave-off switch, UCARS, and a landing grid. A portable capability would be required to support mission package operations from alternate ships. A portable capability to support VTUAV mission package test and evaluation activities from shore sites exists today. Depicted in Figure 6, it performs all the same functions as the shipboard GCS but includes additional hardware for internal communications, GPS, TCDL, and environmental control. Any alternate ship would have to provide TCDL antennae, UHF/VHF antennae, navigation input, and power to operate the VTUAV GCS.

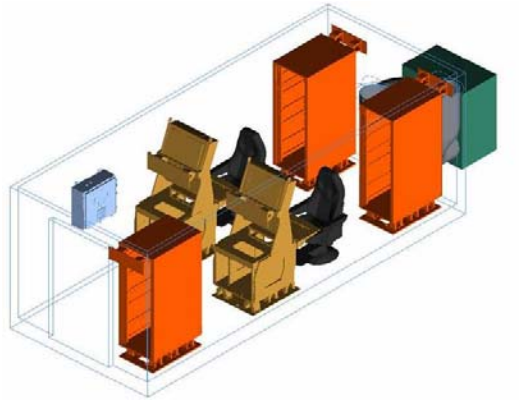


Figure 6: TCDL Ground Control Station

3.2.3 Aviation Mission Module Support

LCS is designed with all "hotel and service" support connections (e.g., power, air, water, etc.) required by the mission package in the areas where the various mission modules will be stored and operated. MP operation from another ship will require that ship provide the required support services to operate the mission package. Table 12 provides a high-level summary of the specific support requirements that need to be accessible in each of the aviation module zones.

Aviation Mission Zones	440VAC 60HZ 3Phase	115VAC 400 HZ	115VAC 60 HZ	28VDC	IC	LAN (C/U)	Chilled Water	Potable Water	SW Cooling	DC Alarms	Work Bench	LP Air	Fuel	Oily Waste
Aviation Operating Zone Service Panel (1,2,3)	20KW	45KVA	5KW	300A	VOIP	Y/Y								
Aviation Support Zone Service Panel (4, 5, 6, 7, 8)	30KW	3KW	15KW		VOIP	Y/Y				Y				
Aviation Operating Zone Resource Station	20KW	45KVA			Voice			Water Wash	10gpm			40 SCFM	JP-5 & Pressure Defuel	
Aviation Support Zone Resource Station			20A		Voice			Hot & Cold			8'x3'	40 SCFM		

Table 12: Aviation Mission Zone Support Requirements

3.2.4 Surface Mission Module Support

Table 13 provides a high-level summary of the specific support requirements that need to be accessible in each of the surface module zones.

Sea Misson Zones	440VAC 60HZ 3Phase	115VAC 400 HZ	115VAC 60 HZ	28VDC	IC	LAN (C/U)	Chilled Water	Potable Water	SW Cooling	DC Alarms	Work Bench	LP Air	Fuel	Oily Waste
Sea Operating Zone Type 1 Service Panel (9 , 10)	8KW		10KW	.28KW	VOIP	Y/Y								
Sea Operating Zone Type 2 Service Panel (11, 12)	15KW	20KW	5KW	.28KW	VOIP	Y/Y	10gpm							
Support Zone Service Panel (13, 14, 15, 16, 17)	30KW	3KW	15KW		VOIP	Y/Y				Y				
Sea Operating Zone Resource Station					Voice	-/2	35gpm	Water Wash	10gpm			40 SCFM	JP-5 & DFM	Gravity Defuel
Sea Support Zone Resource Station			20A		Voice			Hot & Cold			8'x3'	40 SCFM		

Table 13: Surface Mission Zone Support Requirements

3.3 Embarkation Footprint

Table 14 summarizes the basic ASW MP embarkation footprint and operational requirements. The projected MP deck space footprint is 7,348 ft^2 (679 m^2). This does not include the MH-60R or VTUAV footprints and spot requirement. This is the rough space required to stow the modules and provide the required access, not including the flight deck spots for the MH-60R and VTUAVs. The MH-60R and VTUAVs are assumed to be spotted on the flight deck or stowed in the hangar. The module dimensions, module clearance, ordnance and off-board vehicle launch and recovery data were extracted from the ICD for LCS[12] and other documentation.

		Length (meters)			Width (meters)			Footprint 1 Item No Clearance (meters squared)	Footprint Total Quantity (meters squared)	Total Feet Squared	Weight		
Mission Module (Module #)	Qty	Module	Clrnc	Total	Module	Clrnc	Total	M1	M2	FT2	Unit KG	Total KG	STONS
Sea Type 1 (USV) (9, 10)	2	12.2	1.8	14.0	3.6	1.7	5.3	43.9	148.4	1597	11443	22886	25.2
Sea Type 2 (RMMV) (11,12)	2	7.1	1.8	8.9	2.6	1.8	4.4	18.5	78.3	843	10325	20650	22.8
Air Type 1 (MH-60R) (1)	1	14.94	1.8	16.7	4.76	1.8	6.56	71.1	109.8	1182	10500	10500	11.6
Air Type 2 (VTUAV) (2,3)	2	7	1.8	8.8	1.8	1.8	3.6	12.6	63.4	682	1429	2857.6	3.1
Air Support Type 1 (Helo PUK A) (4)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	5909	5909	6.5
Air Support Type 1 (Helo PUK B) (5)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6495	6495	7.2
Air Support Type 2 (VTUAV PUK A) (6)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6697	6697	7.4
Air Support Type 2 (VTUAV GCS) (7)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	7000	7000	7.7
Sea Support Type 1 (USV Support) (13)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	5856	5856	6.5
Sea Support Type 1 (RMMV Support) (14)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	5822	5822	6.4
Air Support Type 1 (Sonobuoys) (8)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6682	6682	7.4
Sea Support Type 1 (RTA / RTAS) (15)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	6299	6299	6.9
Sea Support Type 1 (MSOBS / UTAS / UDS) (16)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	7274	7274	8.0
Sea Support Type 1 (Tools, Small Parts) (17)	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	406	7280	7280	8.0
Magazine	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9			4082	4082	4.5
Portable Ops Center	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	424	3900	3900	4.3
Portable Ops Center	1	6.1	4.26	10.4	2.44	1.2	3.64	14.9	37.7	424	6804	6804	7.5
								339.6	852	9212	113797	136994	151
							Total area required minus acft:		679	7348			

Table 14: ASW MP Embarkation and Operational Requirements

3.4 Alternate Ship Screening Criteria

The optimal alternate ship candidates are those with sufficient capacity to embark the required equipment and personnel, are capable of providing the required module support services with minimal modifications, have at least one certified flight deck spot and hangar, and are capable of launching and recovering the USV and RMMV without the need for special handling equipment. In addition, some ship classes are inherently more

[12] Interface Control Document (ICD) for the Littoral Combat Ship (LCS) Flight Zero Reconfigurable Mission Systems Baseline 1.2, 11 October 2005.

suitable based on their design and missions. Rapid transition from a primary mission to an ASW mission role at the appropriate time would be a significant plus. The study assumes that equipment and personnel embarked for current primary or secondary missions would be debarked as necessary to accommodate the contingency embarkation of the MP and its crew. The screening criteria used to identify the alternate ships for further assessment are identified in Table 15.

Criteria	A-Adequate	P-Potentially Adequate	I-Inadequate
Embarkation	Space to embark full MP	May require breakdown of modules	Insufficient space
MH-60R Launch/Recovery	1 or more spots	Not Applicable	No flight deck
VTUAV Launch / Recovery	2 or more spots	Not Applicable	No flight deck
MH-60R / VTUAV Hangar	1 or more hangar spots	Potential to erect temporary shelter or portable hangar when needed (PE)	No hangar or portable hangar options
USV Launch/Recovery	L/R using organic systems, ship modification (AM), or additional equipment (AE)	Potential L/R using organic system, ship modification (PM) or additional equipment (PE)	Not capable
RMMV Launch/Recovery			
Mission Flexibility	Flexible and relatively rapid transition	Intermediate flexibility and/or transition	Relatively inflexible and/or slow transition
Ship Combat Systems Integration	No modifications required	Some additional equipment and/or modification to ship required	Significant additional equipment and/or modification to ship required
Operationally Suitable	Suitable ship for ASW mission	ASW mission could be performed but ship is not optimal ship	Not suitable for ASW mission
Alternate Ship Candidate	A-Adequate	P-Potentially Adequate	I-Inadequate

Table 15: ASW MP Screening Criteria

3.5 Alternate Ship Candidates

There are a number of U.S. Navy ships that could potentially satisfy some or all of the screening criteria. All current and future U.S. Navy ship classes were identified using SECNAVINST 5030.8 Classification of Naval Ships and Craft[13] and the FY 2009 Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels.[14] The primary focus was on the "Warship Classification" which includes aircraft carrier, surface combatant, and amphibious warfare type ships and the "Other Combatant Classifications"

[13] SECNAVINST 5030.8 Classification of Naval Ships and Craft, 21 November 2006.
[14] Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2009, Director, Warfare Integration (OPNAV N8F), Office of the Chief of Naval Operations, February 2008.

which includes Combat Logistics and Seabasing ships. Table 16 provides the screening results. LCS was included for completeness and is assumed to possess "Adequate" capability, but is the primary, not an alternate ship. The LCC(R) was not assessed due to lack of ship specificity within the shipbuilding plan.

Classification	Type	Class	Embarkation	MH-60S L/R	VTUAV L/R	MH-60S / VTUAV Hangar	USV L/R	RMMV L/R	Platform Mission Flexibility	Ship Combat Systems Integration	Operationally Suitable	Alternate Platform Candidate
Warship Classification	Aircraft Carrier	CVN	A	A	A	A	A	A	A	AE/PM	P	Y
	Surface Combatant	CG	I	A	A	A	PM	PM	P	AE/PM	Y	N
		DDG 1000	I	A	A	A	PM	PM	P	AE/PM	Y	N
		DDG 51	I	A	A	N	PM	PM	P	AE/PM	Y	N
		DDG 79	I	A	A	A	PM	PM	P	AE/PM	Y	N
		FFG 7	I	A	A	A	I	I	P	AE/PM	Y	N
		LCS	A	A	A	A	A	A	A	A	Y	N/A
	Amphibious Warfare	LHA 1	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		LHA 6	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		LHD 1	A	A	A	A	AE/P	AE/P	A	AE/PM	P	Y
		LPD 17	A	A	A	A	A	AE/PM	A	AE/PM	P	Y
		LPD 4	A	A	A	A	A	A	A	AE/PM	P	Y
		LSD 41/49	A	A	A	PE	A	A	A	AE/PM	P	Y
		LCC	PM	A	A	PE	PE/PM	PE/PM	P	AE/PM	N	N
		LCCR	Not Assessed									
Other Combatant Classifications	Combat Logistics	T-AE	P	A	A	A	PM	PM	I	AE/PM	N	N
		T-AFS	P	A	A	A	PM	PM	I	AE/PM	N	N
		T-AO	P	A	A	N	PM	PM	I	AE/PM	N	N
		T-AOE	P	A	A	A	PM	PM	I	AE/PM	N	N
		T-AKE	P	A	A	A	PM	PM	I	AE/PM	N	N
		AS	I	P	P	N	PM	PM	I	AE/PM	N	N
	Sea Basing	JHSV	A	A	A	PM	A	A	A	AE/PM	P	Y
		MPF(F) LHAR/D	A	A	A	A	AE/P	AE/P	A	AE/PM	N	N
		MPF(F) LMSR	A	A	A	PE	AE/P	AE/P	P	AE/PM	N	N
		MPF(F) MLP	A	A	A	N	AE/PM	AE/PM	A	AE/PM	N	N

Table 16: ASW MP Alternate Ship Screening

General comments regarding the ship types or classes screened are provided below:

- Aircraft Carrier – Ships have adequate space to embark all elements of the ASW MP and can easily handle the employment of aviation assets. USV and RMMV launch and recovery operations could be conducted off one of the elevators using the organic boat and aircraft crane. Aircraft carriers would require significant modifications to integrate the ASW MP systems with the ship's combat system. Additionally, the aircraft carrier is judged to be partially operationally suitable because it already has a robust ASW fusion capability and leverages sensory data and information from other ships in the strike group as well as organic MH-60R's. The addition of aviation elements of the ASW MP adds little additional capability and the addition/employment of the surface elements of the ASW MP would require the aircraft carrier to slow, periodically and perhaps predictably, to conduct vehicle launch or recovery operations, which increases its vulnerability in an ASW environment.
- Surface Combatants – Ships generally do not have sufficient space to embark all of the vehicles and support modules. DDG 51 Flights I and II lack a hangar. Davits

would need to be installed for the stowage, launch and recovery of the two USVs and two RMMVs on all with the exception of the FFG 7 class ships, which do not have the space to carry these systems at all. A full assessment would be required to determine if these modifications could be completed without negative impacts in other areas (e.g. stability). Significant modifications to the ship would be required to integrate the ASW MP surface systems with the ship's combat system in all surface combatants. All surface combatants are assessed as operationally suitable to conduct the ASW mission, but that is through employing systems already integrated onboard. None of the non-LCS surface combatants were assessed to be optimal candidates.

- Amphibious Warfare – The LCCs have a significant amount of open topside space that could be modified to stow vehicles and support modules. The LCCs do not have hangars, and cranes/davits would need to be provided for the launch and recovery of the two USVs and two RMMVs. The LSD 41/49 lacks a hangar. The LHA and LHD have an aircraft crash crane, but it is deemed unsuitable for operational employment of the USV and RMMV, since such operations would entail maneuvering the crane to the deck edge to launch or recover the vehicles. This would effectively curtail other operations and occupy a significant portion of the flight deck during those evolutions. Modifications to the ship would be required to integrate the ASW MP systems with the ship's combat system in all amphibious ships. All amphibious ships are assessed as partially operationally suitable to conduct the ASW mission because of their increased vulnerability in an ASW environment.
- Combat Logistics – Ships generally do not have sufficient space to embark all of the vehicles and support modules. The TAO and AS lack hangars. Replenishment staging areas in some classes of ships may provide sufficient space to stow module equipment, but probably not in the containers. Cranes or davits would be required to launch and recover the two USVs and two RMMVs. These modifications could impact underway replenishment capabilities. Combat logistics ships are optimized for underway replenishment or repair and were assessed to be relatively inflexible. Significant modifications to the ship would be required to integrate the ASW MP systems with the ship's combat system in all combat logistics ships. All combat logistics ships are assessed as not operationally suitable to conduct the ASW mission because of the increased vulnerability to the ships in an ASW environment. None of these ships were assessed to be optimal candidates.
- Sea Basing - Ships generally do have sufficient space to embark all of the vehicles and support modules. The JHSV, LMSR and MLP lack hangars. Cranes or davits would be required to launch and recover the two USVs and two RMMVs on all but JHSV. Sea Basing ships are optimized to store and carry equipment and are flexible enough to support the ASW mission with the exception of the LMSR. All sea basing ships are assessed as not operationally suitable to conduct the ASW

mission with the exception of JHSV, which is partially suitable. None of these ships were assessed to be optimal candidates.

The final column of Table 16 contains the overall screening for each ship class. The ship classes that are not viable alternate ship candidates are identified with an N (No) and the ship classes that are viable alternate ship candidates are identified with a Y (Yes). Viable alternate ship classes are CVN, LHA 1, LHA 6, LHD 1, LPD 17, LPD 4, LSD 41/49, and JHSV. These ship classes are further assessed in greater detail below.

3.6 Detailed Assessment of Potentially Suitable Candidates

3.6.1 Ship Support Requirements

The LCS concept is centered on reconfigurable mission modules. The mission module equipment is operated and supported in mission zones aboard ship. The zones applicable to the ASW MP are the Aviation Operating Mission Zone, Aviation Support Mission Zone, Sea Operating Mission Zone, and Sea Support Mission Zone.[15] Mission modules must be stowed in appropriate locations and have access to a service panel for utilities. In addition to the service panels, a stand-alone resource station is required for each mission zone. Alternate ships must be capable of emulating the functions of these mission zones.

3.6.1.1 Aviation

The LCS Aviation Operating Mission Zone consists primarily of the flight deck while the Aviation Support Mission Zone consists primarily of the hangar. All of the potentially suitable ships have an appropriate flight deck; however several classes do not have a hangar. The aviation equipment includes one MH-60R module, two VTUAV modules and the five support modules discussed below.

Many of the aviation operating and support zone requirements can be met by aircraft carriers and other ships capable of supporting MH-60R servicing and operations. The amount of support varies however as some of these ships do not have a hangar or maintenance facilities. Table 17 provides information on the projected operations support, service, maintenance, hangar and operating spots for each of the candidate ships in Table 16.

[15] Interface Control Document (ICD) for the Littoral Combat Ship (LCS) Flight Zero Reconfigurable Mission Systems Baseline 1.2, 11 October 2005.

Ship Class	Day/Nite/IMC Ops	Service	Maintenance Facilities	Hangar	Spots
CVN	Yes	Full	Yes	Yes	Many
LHA/LHD	Yes	Full	Yes	Yes	6
LPD 4	Yes	Full	No	Yes	2/4
LPD 17	Yes	Full	No	Yes	2/4
LSD 41/49	Yes	Limited	No	No	2
JHSV	Yes	Full	No	No	1
MPF(F) LHAR/D	Yes	Full	Yes	Yes	6
MPF(F) LMSR	Yes	Full	No	No	2
MPF(F) MLP	Yes	Full	No	No	1

Table 17: Ship Aviation Facilities

Aircraft carriers and LHA/LHD class ships provide the capability to operate in day and night operations, and instrument meteorological operations. Furthermore, they provide a landing area with support (service and maintenance) facilities and generate numerous helicopter operating spots depending on other aircraft requirements. The LHA and LHD have nine operating spots, typically six of which are manned simultaneously. The LPDs provide similar capability but have no maintenance facilities. LPDs have 2 large spots or 4 smaller expanded spots for small aircraft. It is postulated that the ships without hangars could be augmented with a portable shelter or temporary hangar, if needed. A portable shelter is a relatively light structure that is only erected when needed to shelter the aircraft during maintenance. A temporary hangar is a more durable structure that is erected in the forward spot of multiple spot ships upon MP embarkation. JHSV design includes a protected parking space forward of the operating spot that can accommodate an MH-60 size aircraft. This could potentially be enclosed to provide a temporary shelter.

MP aviation mission modules for the ASW mission are shown in Table 14. Module station (1) is the MH-60R and module stations (2 and 3) are the two VTUAVs, all of which are stowed on the flight deck or in the hangar. The five support modules must be stowed in areas accessible to the flight deck: (4, 5) MH-60R pack-up kits; (6) VTUAV pack-up kit; (7) VTUAV GCS; and (8) Sonobuoys.

Table 12, shown earlier, provides a high-level summary of the specific support requirements that need to be accessible in each of the aviation module zones. The preliminary assessment is that these requirements could be satisfied by each candidate ship, with the possible exception of the JP-5 pressure defuel. Power, interior communication, local area network, potable water, salt water cooling, and low pressure air may need to be run from current distribution points to service panels or resource stations co-located with the modules in some ship classes.

The large deck aviation ships and LPDs would require the fewest modifications to accommodate the aviation modules. JHSV will have six Mission Deck Modular Interface Panels with six types of power and classified/unclassified local area network drops and six service panels with potable water and compressed air in the mission bay.[16,17]

3.6.1.2 Sea

The Sea Operating Mission Zone provides access to launch/recover, test and service the USV and RMMV vehicles. The Sea Mission Support Zone provides area(s) to conduct maintenance. The vehicles must be stowed in davits, cradles or skids in areas accessible by a suitable crane or other launching device, or trailers/cradles that can be easily moved to such areas.

3.6.1.2.1 Launch and Recovery

The potential Sea Operating Mission Zone locations are a function of basic ship design and the equipment installed or that can be embarked to support the launch/recovery of vehicles weighing up to 22,369 lbs (10,140 kg). Table 18 provides a summary of the most likely launch/recovery options for the ship classes of interest.

Launch & Recovery	Flight Deck				Elevator Boat Deck Mission Bay Boat Davit	Welldeck / LCAC Lane (LCAC not embarked)			New Equip. Required
Equipment	CVCC AACC	Crane	**Crane**	**Davit**	Crane Davit	Sterngate	**Sterngate Ramp**	**Crane**	
	Organic		**New**	**New**	Organic	Organic	**New**		
CVN	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV				**No**
LHA 1	USV/RMMV		USV/RMMV	USV/RMMV				USV/RMMV	**Yes**
LHD 1	USV/RMMV		USV/RMMV	USV/RMMV		USV	USV/RMMV		**Yes**
LHA 6	USV/RMMV		USV/RMMV	USV/RMMV					**Yes**
LPD 4		USV/RMMV	USV/RMMV	USV/RMMV	USV/RMMV	USV	USV/RMMV		No
LPD 17			USV/RMMV	USV/RMMV	USV	USV	USV/RMMV		**Yes**
LSD 41/49		USV/RMMV	USV/RMMV	USV/RMMV	USV	USV	USV/RMMV		No
JHSV					USV/RMMV				No
MPF(F) LHAR	USV/RMMV		USV/RMMV	USV/RMMV					**Yes**
MPF(F) LHD	USV/RMMV		USV/RMMV	USV/RMMV		USV	USV/RMMV		**Yes**
MPF(F) LMSR			USV/RMMV	USV/RMMV	USV/RMMV				**Yes**
MPF(F) MLP					USV only 1 ???			USV/RMMV	**Yes**

Table 18: ASW MP USV/RMMV Launch and Recovery by Ship Class

Aircraft Carrier Crash Cranes (CVCC) or Amphibious Assault Ship Crash Cranes (AACC) are required for large deck aviation ships. These cranes have sufficient lift capacity and reach to launch and recover a USV/RMMV over-the-side of the flight deck. However, the crane booms are fixed (not trainable) resulting in relatively cumbersome and time

[16] JHSV Performance Specification, NAVSEA 05, 8 August 2007.

[17] Austal USA JHSV brochure, www.austal.com.

consuming maneuvering for over-the-side crane operations. These cranes may not be suitable for frequent USV/RMMV launch and recovery. CVNs have a 50,000 lb (22,680 kg) capacity boat and aircraft crane on the starboard side just aft of the aft elevator that could support USV/RMMV launch/recovery from the elevator. The LPD 4 and LSD 41/49 classes have boat and aircraft cranes that can support USV/RMMV over-the-side operations from the forward portion of the flight deck. The LPD 17 should be capable of stowing the USV in one of the 11 meter boat skids and launch/recover the USV using the knuckle-boom crane. However, the specific configuration of the USV could require replacement of the skid to match the USV hull form. JHSV is required to accommodate a sling hook height of 19.5 ft (5.94 m) and boats up to 40.4 feet (12.32 m) length, 9.0 ft (2.74m) width, 8.92 ft (2.72 m) height and 25,000 lbs (11,339.81 kg) weight.[18] The USV exceeds the width and height limits and RMMV exceeds the height limits. However, the ship should still be capable of launching and recovering both vehicles using suitable slings.

All of the ship classes with two or more helicopter operating spots might be capable of supporting a new design crane or davits that would be embarked with the surface modules. The crane or davits could be secured along the flight deck edge to support over-the-side operations. Permanent RMMV davits such as the one used for DDG 96 would have to be installed on specific ships.

The amphibious ship well decks and MLP LCAC lanes provide a significant amount of protected space when LCAC are not embarked. Navy has experience launching trailer stowed boats and combat rubber raiding craft from well decks. The launch/recovery of a USV from a well deck should be relatively straightforward. The launch/recovery of a RMMV from a well deck would require special equipment such as a mobile crane or a ramp or sled mounted to the well deck or sterngate. A suitably designed ramp or sled would be preferable to over-the-side crane or davit operations and might provide an option for employing the USV/RMMVs from multiple MPs.

It is important to note that the ASW MP employs two USVs and that operations requiring launching and recovering two USVs by any of these methods would be slow, and could impact the mission.

3.6.1.2.2 Stowage

The primary surface vehicle stowage location options are the flight decks of multiple spot ships, large deck aviation ship hangar bays, the vehicle decks and mission bays, and the well deck or LCAC lanes for ships so configured. The vehicles could also be stowed in new permanently installed davits, if equipped. Table 19 provides a summary of the primary vehicle stowage options for the ship classes of interest.

[18] JHSV Performance Specification, NAVSEA 05, 8 August 2007.

Stowage Location	Flight Deck	Hangar Bay	Boat Deck Boat Davit	**New Davit**	Vehicle Decks Mission Bay	Well Deck LCAC Lane
CVN	USV/RMMV	USV/RMMV		USV/RMMV		
LHA 1	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV
LHD 1	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV
LHA 6	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	
LPD 4	USV/RMMV	USV/RMMV	USV	USV/RMMV	USV/RMMV	USV/RMMV
LPD 17	USV/RMMV	USV/RMMV	USV	USV/RMMV	USV/RMMV	USV/RMMV
LSD 41/49	USV/RMMV		USV	USV/RMMV	USV/RMMV	USV/RMMV
JHSV				USV/RMMV	USV/RMMV	
MPF(F) LHAR	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	
MPF(F) LHD	USV/RMMV	USV/RMMV		USV/RMMV	USV/RMMV	USV/RMMV
MPF(F) LMSR	USV/RMMV			USV/RMMV	USV/RMMV	
MPF(F) MLP			USV	USV/RMMV	USV/RMMV	USV/RMMV

Table 19: ASW MP USV/RMMV Stowage by Ship Class

Ideally, the surface vehicles (9, 10, 11, and 12 as listed in Table 14) would be stowed in the vicinity of the support modules (13, 14, 15, 16, and 17) and protected from the weather if possible. Stowage in a hangar bay, vehicle deck, mission bay or well deck area would require relocation of the vehicle and trailer/cradle to the launch position (e.g. flight deck, aft end of mission bay, etc.) prior to launching.

Table 13, shown earlier, provides a high-level summary of the specific support requirements that need to be accessible in each of the surface module zones. The preliminary assessment is that these requirements could be satisfied by each candidate ship. Power, interior communication, local area network, potable water, salt water cooling, and low pressure air may need to be run from current distribution points to service panel or resource stations co-located with the modules in some ship classes.

3.6.1.3 Mission Package Operations

The planning and execution of MH-60R, VTUAV, USV and RMMV missions requires additional equipment that is not included in the basic ASW MP. This includes pre-mission planning, UHF/VHF communication with the MH-60R and VTUAV, remote control of the USV/RMMV and post-mission analysis of data. Some of these functions are provided by the host ship while others would be provided by the MPPCS. A VTUAV GCS must be embarked to provide sufficient control of the VTUAV that cannot be provided by any of the host ships.

3.6.1.3.1 Mission Package Portable Control Station (MPPCS)

Figure 5 provides a notional MPPCS configuration. The system includes two containers that could be stowed on the weather deck or inside the skin of the ship and would require integration with ship services such as communications, networks and power. Cooling would likely be provided by package units integral to the containers. Two UHF multi-array, two VHF whip and one Iridium satellite antennas must be placed on the ship's mast

or mounted on a top-side container. MPPCS power and other service requirements have not been formally identified. The estimated MPPCS power requirement is 70 KW.

3.6.1.3.2 VTUAV Ground Control Station (GCS)

Figure 6 provides a notional GCS configuration. The MPPCS does not include a TCDL terminal for VTUAV or two processing/radio cabinets and PMA workstations. The GCS performs all the same functions as the LCS GCS but includes additional hardware for internal communications, GPS, TCDL and environmental control. Any alternate ship would have to provide TCDL antennae, UHF/VHF antennae, navigation input, and power to operate the VTUAV. GCS power and other service requirements have not been formally identified. The ship would size power service capable of powering Uninterrupted Power Supplies (UPS) capable of providing 2 KVA for each console rack and 5 KVA for the External Communications (EXCOMMS) rack.

3.6.1.4 Mission Planning and Execution

All of the candidate ships appear to have sufficient space to embark the MPPCS and additional VTUAV support containers necessary to establish the required capabilities.

- Aircraft UHF/VHF communications are provided by the host ship. All ships certified Level 1 will be able to bring up at least a land/launch frequency. USV/RMMV control is provided by the MPPCS.
- Pre-mission planning will be conducted in the MPPCS and ship spaces that may be available. All of the candidate ships have one or more operations spaces that could potentially support these functions. The spaces may not be available if the ship is a shared vice dedicated asset.
- Post-mission analysis capabilities will be relatively modest since the MP and the MPPCS are designed to provide in-situ tactical level processing and prosecution. The Mission Package Computing Environment on LCS provides a record and replay capability for data received from either the USV or the RMS. This capability will not be resident on some of the alternate ships. Detailed post-mission analysis in the ASW mission area is normally performed at sites where dedicated acoustic analysts can review all available data. These sites are usually located ashore (e.g., ASWOC, SSAAC, etc.) although some afloat ships (e.g., ASW fusion cells in CVNs) possess some limited PMA capabilities.
- Compatibility of module data processing and analysis software with currently fielded ship systems may lead to identification of existing command and control systems onboard current potential host ships that can provide some of the USV/RMMV requirements. For example, software loads on existing Integrated Shipboard Network System (ISNS) servers with desktop/laptop local area network drops in existing command and control spaces may be possible.

3.6.1.5 Operational Suitability

All of the potential candidate ships are considered only partially operationally suitable to conduct the ASW mission for a variety of reasons. The aircraft carrier is judged partially operationally suitable because it already has a robust ASW fusion capability. Its specific shipboard ASW systems are certainly modest, effectively leveraging sensory data and evaluated information from accompanying surface combatants and organic MH-60R's in the strike group, as well as data and information from other assets (e.g., maritime patrol aircraft (MPA) assets, TAGOS vessels, national technical means, etc). Therefore, adding aviation elements in the ASW MP brings little additional capability. Similarly, employing surface elements of the ASW MP would require the aircraft carrier to slow, periodically and perhaps predictably, to conduct vehicle launch or recovery operations, which increases its vulnerability in an ASW environment. All amphibious ships are assessed as partially operationally suitable to conduct the ASW mission for several reasons. These ships are neither equipped nor accustomed to performing ASW operations. Embarking ASW MPs in them would require potentially significant combat systems integration costs and training to coordinate shipwide responses to dynamic detections. Additionally, like the carriers, slowing to launch or recover surface vehicles increases vulnerability to attack in an ASW environment. The nature of airborne ASW operations would require use of the flight decks that would impact otherwise necessary and essential flight operations for other primary missions. Likewise, surface ASW operations conducted with the ASW MP would require these ships to dedicate flight deck and/or well deck capacity to accommodate the ASW mission. The JHSV may be a suitable ship; however it would necessarily have to sacrifice its primary mission in order to conduct ASW operations. Additionally, JHSV is designed to operate in a benign threat environment and as such has no real organic detection or self-defense capability and no specific survivability enhancements should it be attacked by a submarine.

3.6.1.6 Other Considerations

The previous sections provided information on the stowage, launch, recovery and operation of the mission modules. There are several other factors that should be considered in assessing alternate ships.

- Shock Hardening – A shock hardened ship would be more survivable in the event of an ASW attack. The CVN, LHA/LHD, LPD 4, LPD 17, and LSD 41/49, ship classes are shock hardened. JHSV is not required to be shock hardened.
- Self Defense – The JHSV will have crew-served weapons, but will not have the robust self-defense systems installed in the combatants. These ships may require escorts or be provided some increased level of self defense, probably through installation of a modification package, when operating in a threat environment.
- Material Handling Equipment – The LCS design includes either installed or portable equipment to lift and transport mission module components internally, as required. The alternate ship candidates have limited installed capabilities to perform this same task. However, each ship will have material handling equipment

such as fork-lifts that could support the movement of most internal module components. The movement of USVs and RMMVs from stowage to launch locations would likely require trailers or cradles with wheels and a fork-lift or tractor to tow the vehicle. The ability to tow vehicles up and down ship ramps would help maximize the use of space and existing services.

- Ordnance Stowage – The ASW MP ordnance load consists of 12 MK 54 torpedoes, 300 ACES (EER) Explosive Buoys, SUS Charges and 20 helicopter cable cutters. The CVN, LHA/LHD, LPD 4, LPD 17, and LSD 49 ship classes have substantial cargo ordnance magazines. The LSD 41 has a much smaller magazine capacity while the JHSV has no cargo magazines. The ordnance load must be assessed for compatibility with the ship-fill, Landing Force Operational Reserve Material (LFORM) and cargo ordnance that is normally stowed in these ships. Portable magazine modules could potentially be used for the JHSV and LSD 41 (if required), but would require WSESRB waivers to do so.
- Module Tie Downs – Twist lock is the preferred method to secure modules and vehicle cradles to the deck. The candidate ships typically use aircraft tie-down sockets/chains or Peck and Hale cloverleafs/lashings. The module containers should be compatible with all three securing methods. The use of tie-downs and gripes could increase the amount of space required to secure the modules. JHSV will have six TEU positions that accommodate the twist lock design.[19]
- Service Interfaces – The LCS ICD identifies the specific connectors that are required to support each mission module to include power, data, air, salt water cooling, fueling, defueling, etc. Not all of the connectors are standardized across the fleet. The development of portable service panels with the standard connections on one side and connections available on a specific ship class on the other side may be required.

3.6.2 Ship Summary

All of the alternate ship candidates were assessed capable of supporting the ASW MP given varying levels of investment in supplemental equipment. Table 20 provides a summary of the projected ship inventory, displacement, total berthing, and MP embarkation and employment related considerations.[20] The displacement and berthing are an indication of the potential risk associated with employment of the ship in an ASW role.

A check mark (✓) indicates an organic capability while a dollar sign ($) indicates that some level of investment would be needed to meet the requirement. A question mark (?) indicates an unknown based on the available documentation. For example, the LSD 41/49

[19] JHSV Performance Specification, NAVSEA 05, 8 August 2007.

[20] CVN and amphibious ship displacement/berthing numbers based on information extracted from United States Navy Fact File at navy.mil. MPF(F) data based on the MPF(F) Capability Development Document and notional concepts identified in MPF(F) Program of Record (POR) Squadron Concept Overview briefing, 2 July 2007.

class ships are capable of MH-60R operations but do not have a hangar. Investment in a temporary shelter or portable hangar would be necessary to achieve the full requirement. The surface investment requirement refers to cranes, davits or well deck ramps/sleds for the launch/recovery of surface vehicles. All of the ships will require some level of investment to make the required mission module service connections.

Ship Class	Displacement Long Tons	Total Berthing	Aviation	Surface	Service Connections	Ship Combat Systems Integration	Degaussing	Self-Defense	Shock Hardened
CVN	86,606	5,680	✓	✓	$	$	✓	✓	✓
LHA 1	39,400	2,864	✓	$	$	$	✓	✓	✓
LHD	40,681	2,973	✓	$	$	$	✓	✓	✓
LHA 6	44,971	2,930	✓	$	$	$	✓	✓	✓
LPD 4	17,000	1,320	✓	✓	$	$	✓	✓	✓
LPD 17	24,900	1,160	✓	$	$	$	✓	✓	✓
LSD 41	15,939	917	$	✓	$	$	✓	✓	✓
LSD 49	16,708	923	$	✓	$	$	✓	✓	✓
JHSV (Navy)	1,400	145	$	✓	$	$	N/A	N/A	N/A

Table 20: Ship Characteristics and ASW MP Capability Summary

3.7 Cost Estimates

The development of a detailed cost estimate would necessitate refinement of the requirements, development of notional load plans, and the identification and pricing of specific required equipment and modifications. The findings discussed previously point to those major equipment and/or modifications necessary for different alternate ships to be made suitable for ASW MP employment. The table above summarizes those areas where there would be a cost incurred to accomplish those modifications and procure certain equipment. Costs for developing and procuring similar items were identified where appropriate. These are ROM estimates only and, as such, are subject to considerable revision pending a more rigorous and detailed site survey. The following are the major cost drivers for ASW MP employment. There would be other costs incurred that are not estimated here. These include the cost to install a MH-60 JP-5 pressure defueling station for those ships that do not have that capability.

3.7.1 Aviation Operations

3.7.1.1 VTUAV GCS

All potential ships would require a VTUAV GCS (described previously) and provide TCDL antennae, UHF/VHF antennae, navigation input, and power to operate the VTUAV GCS. A suitable GCS has been developed and was recently installed on a surface

combatant. The cost for a single VTUAV GCS and installation on a ship is estimated to be $8.4M ($5M for GCS; $3.4M for installation).

3.7.1.2 Portable ordnance magazines

JHSV does not have permanent ordnance magazines and LSD 41 does not have an ordnance magazine suitable to hold the ordnance required for the ASW MP (shown in Table 21). There are currently no temporary or portable ordnance magazines that are suitable or certified for shipboard operational use. It is postulated that ROM development costs for a TEU-size portable magazine incorporating the required hookups for an alarm, fire suppression, locks, monitors and integration with the host ship would be $1.5M. ROM production costs for each magazine are $750K. The ASW MP would require at least three such magazines.

Item	Quantity	Unit Weight kg	Total MP Wt, kg
MK 54 Torpedo	12	317	4,121
SUS charges	16	TBD	TBD
Sonobuoy, AN/SSQ-36B	9	7.2	64.8
Sonobuoy, AN/SSQ-62E	21	19.5	409.5
Sonobuoy, AN/SSQ-53F	72	10.3	741.6
Sonobuoy, AN/SSQ-77C	21	12.6	264.6
Decoy Device, MJU 49/B	780		1,823
Decoy Device, MJU 27 A/B	180		
Decoy Flare, MJU 32/B	189		
Flare Simulator SM-875A/ALE	400		
Countermeasure Chaff, RR-129A/AL	400		
Countermeasure Chaff, RR-144A/AL	160		
Helo Cable Cutter	20	TBD	TBD

Table 21: ASW MP Ordnance

3.7.1.3 Aviation hangar

Ideally, the MH-60R and VTUAVs would have a hangar so that necessary maintenance could be accomplished out of the weather. Erecting a temporary hangar / shelter for JHSV or LSD 41/49 might suffice for this. The JHSV design includes a protected parking space forward of the operating spot that can accommodate an MH-60 size aircraft. It is estimated that this area could potentially be enclosed to provide a temporary hangar. The ROM estimate for a basic cover is $1M. The estimate for a more suitable cover that would provide enough material strength to support lifting a helicopter rotor head or engine is $2M. LSD 41/49 class ships would require a different approach. There is nothing in the U.S. Navy inventory that could be modified to meet the shelter needs on these two ships. There are custom made commercial shelters available. These tension membrane structures consist of a high-impact and resistant 28oz PVC fabric over a stainless steel frame. Some of these are in use in the commercial shipping industry to shelter topside equipment and even helicopters. A ROM estimate for such a structure that would enclose an MH-60R helicopter is $200K, including installation.

3.7.2 Surface Operations

3.7.2.1 Movement of USV and RMMV from stowage to launch locations

The General Dynamics version of LCS employs a unique straddle carrier for movement of the USV and RMMV from storage to launch and recovery positions. This system could be employed on alternate ships. Costs for one of these carriers would be $450K each.

3.7.2.2 Cranes and boat davits

New cranes and boat davits would would be optimal for all alternative ships (CVN and all amphibious warfare ships). JHSV would likely need new boat davits; the crane they have will probably work. The ROM cost for new cranes and boat davits is $3M.

3.7.2.3 Well deck launch of RMMV

One alternative to employing RMMV from the amphibious warfare ships that have a well deck is to launch and recover them from there. Such a system would have to be specifically manufactured and installed for each individual ship class so that the RMMV could clear the stern gate when launched with its antenna in the deployed position. An installation of gantry cranes or skids would also have to be made such as to ensure that normal well deck operations for launching LCACs (the primary mission) are not impeded. An estimated ROM cost for such a system is $2M.

3.7.3 Other costs

3.7.3.1 Mission Package Portable Control System (MPPCS)

An MPPCS will be necessary to operate the ASW MP from any alternate ship. Expanding the existing MPPCS used for testing purposes to a full tactically-ruggedized operations center is estimated to cost $2M each. Additionally, the host ship (alternative ship) would be required to provide interfaces with ships services addressed above.

3.7.3.2 MP Service Panels

The development of portable service panels with the standard connections on one side and connections available on a specific ship class on the other side may be required for any alternative ship. These interfaces and connections would include power, interior communication, local area network, potable water, salt water cooling, and low pressure air. These services may need to be run from current distribution points to service panels or resource stations co-located with the modules in some ship classes. It would also include overhead cableway and fueling systems modification for those ships that would require it. The ROM cost for this ranges from $203K to $268K.

3.7.3.3 Interface with ship’s combat system

As the MP is specifically designed to integrate with the combat system on LCS, integration of the mission package with an alternate ship’s combat system would entail additional costs. The ROM cost for this is $1M. The total ROM cost estimate to modify the various alternate ships to employ the ASW MP is shown in Table 22.

MODS	VTUAV GCS	Ordnance Magazines	Hangar	USV & RMMV Movement	Cranes & boat davits	Well deck RMMV launch	Service Panels	Portable Ops Center (TEUs +antennas)	Interface w/Ship's Weapons System	TOTAL COSTS
SHIPS										
CVN	$8.4M	N/A	N/A	$450K	$3M	N/A	$203K	$2M	$1M	$15M
LHA 1	$8.4M	N/A	N/A	$450K	$3M	$2M	$268K	$2M	$1M	$15.8M
LHD	$8.4M	N/A	N/A	$450K	$3M	$2M	$203K	$2M	$1M	$15M
LHA 6	$8.4M	N/A	N/A	$450K	$3M	N/A	$203K	$2M	$1M	$17M
LPD 4	$8.4M	N/A	N/A	$450K	$3M	$2M	$203K	$2M	$1M	$15M
LPD 17	$8.4M	N/A	N/A	$450K	$3M	$2M	$203K	$2M	$1M	$15M
LSD 41	$8.4M	$3.75M	$200K[1]	$450K	$3M	$2M	$203K	$2M	$1M	$21M
LSD 49	$8.4M	N/A	$200K[1]	$450K	$3M	$2M	$203K	$2M	$1M	$15M
JHSV (Navy)	$8.4M	$3.75M	$2M[2]	$450K	$3M	N/A	$268K	$2M	$1M	$21.7M

[1] This is for a fabric over stainless frame shelter with doors. There would be no structural ability to support lifting an engine
[2] This encloses the parking area on JHSV and provides the structure to support lifting an engine or rotor head
N/A (Not Applicable)

Table 22: ASW MP Ship Modification ROM Costs

4 MISSION PACKAGE AVAILABILITY

4.1 LCS and Mission Package Delivery Timelines

This section of the report discusses the availability of mission packages for employment in alternate ships. Navy envisions fielding 64 mission packages, which could be interchanged across the 55-ship LCS class as operational requirements dictate. Production of LCS ships has been restructured from what was first envisioned and, as a result, not as many ships will be delivered early in the program as originally envisioned. At the same time, technologies for some mission package systems have not matured as quickly as originally anticipated. It was never intended that mission packages be delivered exactly one-for-one along with the ships themselves, however the procurement plan has been and remains that they will be fairly evenly matched.

Figure 7 presents a graphic depiction of ship and mission package deliveries through FY 15. The solid red line represents the number of LCS ships delivered at the end of a particular fiscal year. Thus, there will be 4 ships at the end of FY 12 and 7 at the end of FY 13 and so on.

The darker colored blocks depict deliveries of the baseline mission packages (blue = MCM; red = ASW and green = SUW); the first 2 MCM MP in FY12 and the first ASW and SUW MPs in FY13. Lighter shaded blocks (P) depict non-baseline mission packages (denoted with a "P"). These packages are a subset of the baseline systems, and include engineering development models (EDMs) and low rate initial production (LRIP) systems.

What this graphic illustrates is that that across the FYDP, the number of baseline mission packages will not exceed the number of LCS ships available in any given year. For example, there will be 7 LCS ships in FY 13, and 4 MCM, 1 ASW and 1 SUW MP (total 6) that provide baseline capability.

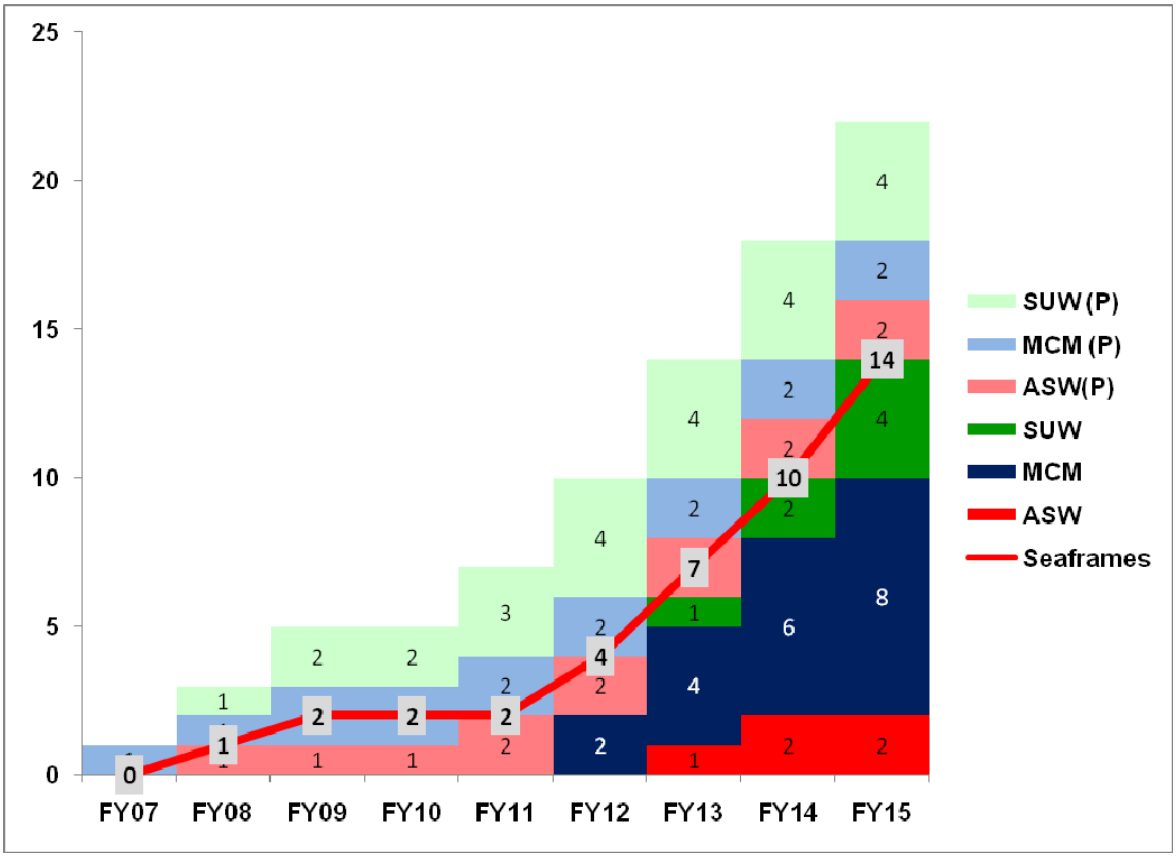


Figure 7: LCS ship vs Mission Package Deliveries

Similarly, the study examined the inventories of potential alternatives to determine their possible availability. Table 23 shows the total number of each class ship in the inventory at the end of each fiscal year.

	09	*10*	*11*	*12*	*13*	*14*	*15*
CVN	11	11	11	11	10	10	11
LHD-1	8	8	8	8	8	8	8
LHA-1	2	2	2	2	2	2	2
LHA-6	0	0	0	1	1	1	1
LSD-41	8	8	8	8	8	8	8
LSD-49	4	4	4	4	4	4	4
LPD-4	4	4	4	2	1	1	1
LPD-17	5	6	8	9	9	9	9
JHSV	0	0	0	1	2	3	4
MPF LMSR	0	0	0	0	0	0	0
MPF MLP	0	0	0	0	0	0	0
MPF LHD	0	0	0	0	0	0	0
MPF AV LHAR	0	0	0	0	0	0	1

Table 23: Alternate Ship Inventory

This shows that there are a number of CVNs, LHD-1s, LSD 41s and LPD 17s in the inventory, however their expected availability to support other than primary missions is severely limited as has been demonstrated in the past. At best, they may be available on a contingency basis. LHA-1s and LPD-4s are small in number. The MPF(F) ships are not available in any significant numbers. Navy will only have a total of 4 JHSVs by 2015 and it is anticipated that they will be heavily tasked by theater commanders for their primary mission of intra-theater transport of personnel and equipment.

5 FINDINGS AND RECOMMENDATIONS

5.1 Findings

Navy has several options for developing a MCM MP contingency capability.

5.1.1 Alternate MCM MP Employment

The alternate ship candidates are CVN, LHA/LHD, LPD 4/17, LSD 41/49, JHSV, MPF(F) LHA(R)/LHD, MPF(F) LMSR and MPF(F) MLP. Each of these ships would be capable of supporting MCM MPs, with appropriate supplemental equipment and service connection modifications.

- CVN and LPD 4 classes have the most complete organic capability to support the aviation and sea modules. However, the use of a CVN in a MCM role may be limited due to other strategic priorities, impact of MCM operations on cyclical flight operations, and overall risk associated with a capital ship and very large crew. LPD 4 class ships are being replaced by LPD 17s. Only one LPD 4 class ship will be in inventory in 2014, with projected decommissioning in 2018.
- LSD 41/49 class ships have the required organic capabilities with the exception of an aircraft hangar. These ships are good choices for alternate ships if a hangar is not required, or if a temporary shelter or hangar could be embarked.
- JHSV will have the required organic capabilities with the exception of an aircraft hangar. A temporary shelter or hangar could be embarked. These ships may be available for tasking when amphibious ships are required for Marine Corps lift and can be relocated at high speed as required. The ships will be equipped with module interface services that parallel the approach taken in LCS. JHSV will not have a degaussing system or be shock hardened.
- LHA 1/LHD/LHA 6, MPF(F) LHA(R)/LHD and LPD 17 have the required aviation capabilities but have limited or no USV/RMMV launch and recovery capabilities. These ships would be good choices for alternate ships if portable cranes, davits and/or well deck (less LHA 6 and LHA(R)) launch and recovery equipment are available. The MPF(F) LHA(R) may not have a degaussing system or be shock hardened.
- MPF(F) LMSR and MPF(F) MLP have relatively less organic capability to support the MCM MP than the other ship classes. Neither of these ship classes will have an aircraft hangar. The LMSR 112 long ton organic crane may be too large for USV/RMMV launch and recovery. The MLP will have a davit that appears to be suitable for the USV but does not have a crane large enough to launch and recover the USV/RMMV. Portable cranes or davits would likely be required for the LMSR. Portable cranes, davits or handling equipment for the MLP LCAC lanes

would be required. The ships will not have degaussing systems or be shock hardened.

5.1.1.1 Investment:

The establishment of a MCM MP contingency capability would require investment in:

- MPPCS.
- Temporary shelters or hangars for ships without an aircraft hangar.
- Portable cranes, davits or well deck launching sleds/ramps for use on ships without organic USV/RMMV launch and recovery capability.
- Equipment kits and pre-grooming of ships to make the connections between mission modules and shipboard systems to include power, low pressure air, fuel, local area networks, etc.

Total estimated ROM costs to modify potential alternative surface ships to employ the MCM MP range from $15M to $25.1M per ship.

5.1.2 Alternate ASW MP Employment

The alternate ship candidates are CVN, LHA 1, LHA 6, LHD 1, LPD 17, LPD 4, LSD 41/49, and JHSV. Each of these ships would be capable of supporting ASW MPs, with appropriate supplemental equipment and service connection modifications.

- CVN and LPD 4 classes have the most complete organic capability to support the aviation and sea modules. However, the CVN already has extensive ASW fusion capabilities onboard, and the addition of a supplemental aviation package from the ASW MP would add little additional capability. While the CVN also possesses a capability to launch and recover the USV and RMMV, such evolutions would require periodic and possibly predictable slow speed excursions which would restrict the carrier's maneuverability and would increase her vulnerability to submarine attack in an ASW environment. The LPD 4 has a boat and aircraft crane that can support USV/RMMV over-the-side operations from the forward portion of the flight deck, however LPD 4 class ships are being replaced by LPD 17s. Only one LPD 4 class ship will remain in the active inventory in 2014, and it is scheduled to decommission in 2018.
- LPD 17 class ships are nearly as capable in their ability to organically support the ASW MP, with the only exception being in its ability to deploy the RMMV. Assuming the RMMV would be stowed and launched from the ships well deck, some modifications would be required to facilitate a cradle to facilitate sterngate launch and recovery. However, it is very important to note that this deployment method would be a very slow evolution, to the point where tactical utility comes into question.
- LSD 41/49 class ships and JHSV have the required organic capabilities with the exception of an aircraft hangar. These ships are good choices for alternate ships if

a hangar is not required, or if a temporary shelter or hangar could be embarked. LSD 41/49 class ships also have boat and aircraft cranes that can support USV/RMMV over-the-side operations from the forward portion of the flight deck. JHSV is equipped with a crane which should be able to accommodate both the USV and RMMV, provided existing slings can be modified while preserving safe operations.

- LHA 1, LHA 6 and LHD 1 ship classes would each require equipment modifications to permit launch and recovery of both the USV and RMMVs.

5.1.2.1 Investment:

The establishment of an ASW MP contingency capability would require investment in:

- MPPCS.
- Temporary shelters or hangars for ships without an aircraft hangar.
- Portable cranes, davits or well deck launching sleds/ramps for use on ships without organic USV/RMMV launch and recovery capability.
- Equipment kits and pre-grooming of ships to make the connections between mission modules and shipboard systems to include power, low pressure air, fuel, local area networks, etc.

Total estimated ROM costs to modify potential alternative surface ships to employ the ASW MP range from $15M to $21.7M per ship.

5.1.3 Mission Package Availability for Employment on Alternative Ships

Across the FYDP, the number of baseline mission packages is closely aligned with the number of LCS ships available in any given year. This leads to the conclusion that employment of mission packages from alternate ships is unnecessary. Maintaining the synergy between LCS and MPs is the preferred course of action.

5.1.4 Operational Utility Summary

The employment of mission modules from the ships identified above could provide operational utility, once the individual systems have been determined to be suitable and effective for operational employment. The current strategy calls for completion of system testing, and then testing and evaluation of MPs integrated with LCS. As the current LCS ship and MP profiles are aligned, maintaining this synergy is the preferred path to fielding of warfighting capability, and provides for risk reduction and generation of lessons learned for future LCS and MP enhancements. In the event of unexpected changes to LCS delivery profiles, a contingency plan could be executed which would leverage the capabilities resident within the identified alternate ships to employ some number of mission modules.

LCS is designed and built from the keel up to respond to ASW and MCM capability gaps in the littorals. With the MCM mission package embarked, LCS provides a first response mine hunting and mine sweeping capability enabling mine countermeasures operations to

be conducted ahead of power projection forces. With the ASW mission package embarked, LCS provides the capability to detect, classify, localize, and prosecute enemy submarines. This will allow protection of Carrier Strike Group (CSG)/Expeditionary Strike Group (ESG) OPAREAs and the establishment of ASW barriers. As such, the mission packages are deliberately assembled and intended to integrate with the systems aboard LCS to achieve the desired effective operational capability in those mission areas. None of the potential alternate ships that might employ one of those two mission packages is operationally suited to provide a capability similar to that just described for LCS. The whole notion behind LCS is to get out ahead of those ships and provide the MCM and ASW protection for those forces.

Placing those mission packages in an alternate ship sub optimizes the effectiveness of the MCM and ASW mission packages at best, and in some cases could place the host ship at risk. In the case of the CVNs and amphibious ships, it would not be operationally sound to place them in the vicinity of a potential minefield except in an extreme contingency. During Desert Storm, USS Tripoli (LPH-10) was redirected to conduct airborne mine countermeasures. 1750 Marines were put ashore and HM-14 with MH-53 helicopters was brought aboard to conduct airborne MCM operations. Tripoli struck a mine six weeks into her mission and was put out of commission for 30 days and cost upwards of $5 million to repair. HM-14 was cross-decked to USS New Orleans (LPH-11), displacing another 1750 Marines ashore. ASW operations are already conducted from CVNs in conjunction with the ASW assets of her escorts. There is limited operational effectiveness gained in adding an additional MH-60R and two VTUAVs to the CVN and addition of the surface mission modules to the CVN would only detract from the primary mission of operating aircraft as the ship would unnecessarily be forced to slow and restrict maneuvering to launch and recover the USVs and RMMVs. Similarly, amphibious ships are normally deployed in an ESG and are escorted by combatant ships that have a robust ASW capability. Adding the additional MH-60R and VTUAVs to one of those ships would add limited ASW capability. Those ships would also be severely restricted in conducting their primary missions if required to slow and restrict maneuvering to employ the ASW surface modules. The MPF(F) ships could be modified at some expense to support employment of the MCM mission package, however they are not available in any significant numbers, with only three MLPs delivered by 2020. Their envisioned employment would not support redirection of tasking to support MCM operations. The MPF(F) ships are not candidates to support the ASW mission package. JHSV could support employment of both the MCM and ASW mission packages with modification to support extended helicopter and VTUAV operations. Currently, JHSV can only support limited helicopter launching and recovery; it has no capability to support routine aircraft operations. Navy will only have a total of 4 JHSVs by 2015 and it is anticipated that they will be heavily tasked by theater commanders for their primary mission of intra-theater transport of personnel and equipment. JHSV has virtually no capability to defend itself and very limited survivability if attacked and thus would be completely exposed if used to conduct MCM or ASW operations.

5.2 Recommendations

The recommendation is that Navy continue with current plans to employ MCM and ASW MPs solely on LCS ships. A review of the analysis for this report concludes that there are insufficient baseline mission packages available for employment in alternate ships to consider that as an advisable objective. Furthermore, the operational utility gained by employing either the MCM or ASW MP on any potential alternate ship is not outweighed by the significant impact to normal ship missions and the modification costs necessary to ready an alternate ship capable of employing one of those MPs. The mission packages are deliberately assembled and intended to integrate with the systems aboard LCS to achieve the desired effective operational capability in those mission areas. None of the potential alternate ships that might employ one of those two mission packages are operationally suited to provide a capability similar to LCS.

The following steps would be necessary to support the employment of MCM and ASW MPs on alternate ships, if required to support unexpected changes to LCS delivery profiles:

5.2.1 Concept of Operations (CONOPS)

Develop a CONOPS for the employment of the contingency capability in potential situations requiring the capability. These might include:

- MCM and ASW operations in advance of a Marine Expeditionary Force (MEF) landing in conjunction with major combat operations;
- Opening a strait in a multi-threat environment; and
- Opening a harbor and the associated shipping channels in an otherwise benign environment.

5.2.2 Contingency Capability Options

Identify specific contingency capability options to support the CONOPS. The options should include different combinations of alternate ships.

5.2.3 Surveys and Cost Estimates

Conduct detailed surveys of the primary alternate ship candidates. Develop a notional equipment laydown based on the ship configuration and identify the specific additional equipment that would be required. This could be accomplished partially through limited objective experimentation with the ship classes of interest. Conduct an assessment of the cost of procuring the required equipment, to include the pricing of suitable temporary aircraft shelters or hangars (if required) and USV/RMMV launch and recovery equipment.

5.2.4 Cost-effectiveness analysis

Determine the most cost effective approach to deliver the required contingency capability using the CONOPS, capability options, surveys and cost estimates.

Appendix A - Acronyms and Abbreviations

AACC	Amphibious Assault Ship Crash Crane
AD	Destroyer Tender
AE	Adequate – Equipment
AM	Adequate - Modifications
ALMDS	Airborne Laser Mine Detection System
AMCM	Airborne Mine Countermeasures
AMNS	Airborne Mine Neutralization System
ARPDD	Automatic Radar Periscope Detection and Discrimination
ASW	Anti-submarine Warfare
CG	Guided Missile Cruiser
COBRA	Costal Battlefield Reconnaissance and Analysis
CONOPS	Concept of Operations
CSG	Carrier Strike Group
CVCC	Aircraft Carrier Crash Crane
CVN	Multi-purpose Aircraft Carrier, Nuclear Propulsion
CVNM	Multi-purpose Aircraft Carrier, Nuclear Propulsion
DDG	Guided Missile Destroyer
DFM	Diesel Fuel Marine
ESG	Expeditionary Strike Group
EXCOMMS	External Communications Racks
FFG	Guided Missile Frigate
FT	Feet
FY	Fiscal Year
GAO	Government Accounting Office
GCS	Ground Control Station
GCCS-M	Global Command and Control System - Maritime
ICD	Interface Control Document
IC	Internal Communications

ISNS	Integrated Shipboard Network Systems
JHSV	Joint High Speed Vessel
JP-5	Jet Propellant 5 Fuel
KG	Kilograms
KW	Kilowatt
L/R	Launch/Recovery
LAN	Local Area Network
LBS	Pounds
LCAC	Landing Craft Air Cushion
LCC	Amphibious Command Ship
LCCR	Amphibious Command Ship Replacement
LCS	Littoral Combat Ship
LFORM	Landing Force Operational Reserve Material
LHA	Amphibious Assault Ship (General Purpose)
LHA(R)	MPF(F) Large Deck Aviation Ship Based on LHA 6 Class
LMSR	Large Medium Speed Roll-On / Roll-Off
LP	Low Pressure
LPD	Amphibious Transport Dock
LPA	Landing Platform Amphibious
LPH	Amphibious Assault Ship (Helicopter)
LSD	Landing Ship Dock
MCM	Mine Countermeasures
MEDAL	Mine Warfare Environmental Decision Aids Library
MEF	Marine Expeditionary Force
MLP	Mobile Landing Platform
MM	Mission Module
MP	Mission Package
MPA	Maritime Patrol Aircraft
MPF(F)	Maritime Prepositioning Force (Future)

MPPCS	Mission Package Portable Control Station
NTA	National Technical Means
OAMCM	Organic Airborne Mine Countermeasures
OASIS	Organic Airborne and Surface Influence Sweep
OPNAV	Office of the Chief of Naval Operations
POR	Program of Record
PMA	Post-Mission Analysis
PUK	Pack-Up Kit
RAMICS	Rapid Airborne Mine Clearance System
RMMV	Remote Multi-Mission Vehicle
ROM	Rough Order of Magnitude
SW	Salt Water
T-AE	Ammunition Ship (assigned to Military Sealift Command)
T-AFS	Combat Store Ship (assigned to Military Sealift Command)
T-AGOS	Surveillance (assigned to Military Sealift Command)
T-AKE	Ammunition Cargo Ship (assigned to Military Sealift Command)
T-AO	Oiler (assigned to Military Sealift Command)
T-AOE	Fast Combat Support Ship (assigned to Military Sealift Command)
T-ARS	Salvage Ship (assigned to Military Sealift Command)
T-ATF	Fleet Ocean Tug (assigned to Military Sealift Command)
TCDL	Tactical Common Datalink
TEU	Twenty Foot Equivalent Container
UCARS	UAV Common Automatic Recovery System
UHF	Ultra High Frequency
UPS	Uninterrupted Power Supplies
USN	U.S. Navy
USSS	Unmanned Surface Sweep System
USV	Unmanned Surface Vehicle
VHF	Very High Frequency

VTUAV	Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle
WSESRB	Weapons System Explosives Safety Review Board

APPENDIX B - REFERENCES

The following references were used in this study.

1. Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2009, Director, Warfare Integration (OPNAV N8F), Office of the Chief of Naval Operations, February 2008.
2. Defense Acquisitions, Overcoming Challenges Key to Capitalizing on Mine Countermeasures Capabilities, Government Accountability Office (GAO) 08-13, October 2007.
3. LCS Mission Modules Contingency Capability – Alternate Platforms of Shore Site Briefing, January 2008.
4. SECNAVINST 5030.8 Classification of Naval Ships and Craft, dated 21 November 2006. 6. Interface Control Document (ICD) for the Littoral Combat Ship (LCS) Flight Zero Reconfigurable Mission Systems Baseline 1.2, 11 October 2005.
5. Jane's Fighting Ships, jfs.janes.com.
6. Helicopter Operations from Ships Other Than Aircraft Carriers (HOSTAC) Technical Supplement Volume II, App 2(F)/MPP 2(F) Volume II, July 2006.
7. OPNAVINST 3101.350B Required Operational Capabilities (ROC) and Projected Operational Environment (ROE) for LHD-1 (Wasp) Class Amphibious Assault Ships, 17 June 2005.
8. OPNAVINST 3120.35J Requirements for Air Capable, Amphibious Assault, and Mine Countermeasures Ships to Operate Aircraft, 27 June 2000.
9. JHSV Capability Development Document, 8 February 2007.
10. JHSV Performance Specification, NAVSEA 05, 8 August 2007.
11. MPF(F) Program of Record (POR) Squadron Concept Overview briefing, 2 July 2007.
12. Capability Development Document for the Maritime Prepositioning Force (Future) [MPF(F)] Squadron Increment One – Mobile Landing Platforms (MLP) and Auxiliary Dry Cargo/Ammunition Ships (T-AKE), draft, 18 January 2008.
13. Littoral Combat Ship Anti-Submarine Warfare Mission Package Embarkation/De-Embarkation Plan for the General Dynamics LCS SeaFrame, Space and Naval Warfare Systems Center, 16 June 2008
14. Littoral Combat Ship Anti-Submarine Warfare Mission Package Embarkation/De-Embarkation Plan for the Lockheed Martin LCS SeaFrame, Space and Naval Warfare Systems Center, 13 December 2008
15. DRAFT Littoral Combat Ship Mine Countermeasures Mission Package Embarkation Plan for the Lockheed Martin LCS SeaFrame, Space and Naval Warfare Systems Center, 5 September 2008

16. DRAFT Littoral Combat Ship Mine Countermeasures Mission Package Embarkation Plan for the General Dynamics LCS SeaFrame, Space and Naval Warfare Systems Center, 6 September 2008

17. Navy Training System Plan for the Littoral Combat Ship Mine Countermeasures Mission, N86-NTSP-P-30-0604A/D, August 2008

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In response to the Fiscal Year 2009 Defense Authorization Senate Armed Services Committee Report 110-35, the enclosed report addresses feasibility of employing the Littoral Combat Ship (LCS) Mine Countermeasures (MCM) and Anti-Submarine Warfare (ASW) mission packages on other ship classes in the battle force.

The study examined the ability to employ the MCM and ASW mission packages on multiple ship classes and the required ship modifications necessary for employment. The study determined employment of a mission package from alternative ships would adversely impact execution of that ship's primary mission. Additionally, the report concluded that none of the potential alternate ships are operationally suited to provide modular mission package capability similar to LCS. As LCS and mission package delivery schedules are currently aligned, Navy continues current plans to employ MCM and ASW mission packages solely on LCS.

A similar letter is also being provided to Chairmen Inouye, Skelton, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As Stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In response to the Fiscal Year 2009 Defense Authorization Senate Armed Services Committee Report 110-35, the enclosed report addresses feasibility of employing the Littoral Combat Ship (LCS) Mine Countermeasures (MCM) and Anti-Submarine Warfare (ASW) mission packages on other ship classes in the battle force.

The study examined the ability to employ the MCM and ASW mission packages on multiple ship classes and the required ship modifications necessary for employment. The study determined employment of a mission package from alternative ships would adversely impact execution of that ship's primary mission. Additionally, the report concluded that none of the potential alternate ships are operationally suited to provide modular mission package capability similar to LCS. As LCS and mission package delivery schedules are currently aligned, Navy continues current plans to employ MCM and ASW mission packages solely on LCS.

A similar letter is also being provided to Chairmen Inouye, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As Stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

In response to the Fiscal Year 2009 Defense Authorization Senate Armed Services Committee Report 110-35, the enclosed report addresses feasibility of employing the Littoral Combat Ship (LCS) Mine Countermeasures (MCM) and Anti-Submarine Warfare (ASW) mission packages on other ship classes in the battle force.

The study examined the ability to employ the MCM and ASW mission packages on multiple ship classes and the required ship modifications necessary for employment. The study determined employment of a mission package from alternative ships would adversely impact execution of that ship's primary mission. Additionally, the report concluded that none of the potential alternate ships are operationally suited to provide modular mission package capability similar to LCS. As LCS and mission package delivery schedules are currently aligned, Navy continues current plans to employ MCM and ASW mission packages solely on LCS.

A similar letter is also being provided to Chairmen Inouye, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As Stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In response to the Fiscal Year 2009 Defense Authorization Senate Armed Services Committee Report 110-35, the enclosed report addresses feasibility of employing the Littoral Combat Ship (LCS) Mine Countermeasures (MCM) and Anti-Submarine Warfare (ASW) mission packages on other ship classes in the battle force.

The study examined the ability to employ the MCM and ASW mission packages on multiple ship classes and the required ship modifications necessary for employment. The study determined employment of a mission package from alternative ships would adversely impact execution of that ship's primary mission. Additionally, the report concluded that none of the potential alternate ships are operationally suited to provide modular mission package capability similar to LCS. As LCS and mission package delivery schedules are currently aligned, Navy continues current plans to employ MCM and ASW mission packages solely on LCS.

A similar letter is also being provided to Chairmen Levin, Skelton, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Enclosure:
As Stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

May 12, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Under Title 10 USC § 231, the Secretary of Defense is required to submit with the Defense Budget an Annual Long Range Plan for the Construction of Naval Vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide the funding required to support the Navy's long-range construction plan. Given the National Security Strategy is due for release this summer, future force structure may be impacted. Therefore, the Navy considers it prudent to defer its Fiscal Year 2010 report and submit its next report concurrent with the President's Fiscal Year 2011 budget.

In addition to the National Security Strategy, the statutory guidelines require the report reflect the Quadrennial Defense Review (QDR). The latest QDR is on-going in parallel with the National Security Strategy work. Additionally, the Nuclear Posture Review, which has direct bearing on the numbers of strategic ballistic missile submarines, is due for completion incident with submission of the Fiscal Year 2011 budget. These efforts will likely have a substantive impact on the Navy's force structure requirements.

It is important to ensure the Navy's long-range shipbuilding plan reflects the most up-to-date force structure requirements. I believe the plan would better support a stable demand for the shipbuilding industry by minimizing its iterations and ensuring alignment with guidance. The Fiscal Year 2011 report will integrate all of the guidance and provide a more useful and comprehensive shipbuilding plan.

A similar letter has been sent to Chairmen Inouye, Murtha, and Skelton. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Copy:
The Honorable John McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Under Title 10 USC § 231, the Secretary of Defense is required to submit with the Defense Budget an Annual Long Range Plan for the Construction of Naval Vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide the funding required to support the Navy's long-range construction plan. Given the National Security Strategy is due for release this summer, future force structure may be impacted. Therefore, the Navy considers it prudent to defer its Fiscal Year 2010 report and submit its next report concurrent with the President's Fiscal Year 2011 budget.

In addition to the National Security Strategy, the statutory guidelines require the report reflect the Quadrennial Defense Review (QDR). The latest QDR is on-going in parallel with the National Security Strategy work. Additionally, the Nuclear Posture Review, which has direct bearing on the numbers of strategic ballistic missile submarines, is due for completion incident with submission of the Fiscal Year 2011 budget. These efforts will likely have a substantive impact on the Navy's force structure requirements.

It is important to ensure the Navy's long-range shipbuilding plan reflects the most up-to-date force structure requirements. I believe the plan would better support a stable demand for the shipbuilding industry by minimizing its iterations and ensuring alignment with guidance. The Fiscal Year 2011 report will integrate all of the guidance and provide a more useful and comprehensive shipbuilding plan.

A similar letter has been sent to Chairmen Inouye, Murtha, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Copy:
The Honorable John McHugh
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable Daniel K. Inouye
Chairman, Committee on
Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

Under Title 10 USC § 231, the Secretary of Defense is required to submit with the Defense Budget an Annual Long Range Plan for the Construction of Naval Vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide the funding required to support the Navy's long-range construction plan. Given the National Security Strategy is due for release this summer, future force structure may be impacted. Therefore, the Navy considers it prudent to defer its Fiscal Year 2010 report and submit its next report concurrent with the President's Fiscal Year 2011 budget.

In addition to the National Security Strategy, the statutory guidelines require the report reflect the Quadrennial Defense Review (QDR). The latest QDR is on-going in parallel with the National Security Strategy work. Additionally, the Nuclear Posture Review, which has direct bearing on the numbers of strategic ballistic missile submarines, is due for completion incident with submission of the Fiscal Year 2011 budget. These efforts will likely have a substantive impact on the Navy's force structure requirements.

It is important to ensure the Navy's long-range shipbuilding plan reflects the most up-to-date force structure requirements. I believe the plan would better support a stable demand for the shipbuilding industry by minimizing its iterations and ensuring alignment with guidance. The Fiscal Year 2011 report will integrate all of the guidance and provide a more useful and comprehensive shipbuilding plan.

A similar letter has been sent to Chairmen Skelton, Murtha, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Copy:
The Honorable Thad Cochran
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

May 12, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Under Title 10 USC § 231, the Secretary of Defense is required to submit with the Defense Budget an Annual Long Range Plan for the Construction of Naval Vessels and certification that both the budget for that fiscal year and the Future Years Defense Program provide the funding required to support the Navy's long-range construction plan. Given the National Security Strategy is due for release this summer, future force structure may be impacted. Therefore, the Navy considers it prudent to defer its Fiscal Year 2010 report and submit its next report concurrent with the President's Fiscal Year 2011 budget.

In addition to the National Security Strategy, the statutory guidelines require the report reflect the Quadrennial Defense Review (QDR). The latest QDR is on-going in parallel with the National Security Strategy work. Additionally, the Nuclear Posture Review, which has direct bearing on the numbers of strategic ballistic missile submarines, is due for completion incident with submission of the Fiscal Year 2011 budget. These efforts will likely have a substantive impact on the Navy's force structure requirements.

It is important to ensure the Navy's long-range shipbuilding plan reflects the most up-to-date force structure requirements. I believe the plan would better support a stable demand for the shipbuilding industry by minimizing its iterations and ensuring alignment with guidance. The Fiscal Year 2011 report will integrate all of the guidance and provide a more useful and comprehensive shipbuilding plan.

A similar letter has been sent to Chairmen Inouye, Skelton, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

BJ Penn
Acting

Copy:
The Honorable C. W. Bill Young
Ranking Member

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

ACTION MEMO

IN REPLY REFER TO

February 2, 2009

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

SUBJECT: Ship Maintenance and Material Condition

- Mr. Secretary, request you sign TAB A and forward to the Chairmen of the Defense Committees.

- The FY 2009 National Defense Authorization Act Senate Committee Report (110-335) requires the Navy to submit a report that addresses ship material condition and readiness. The report must include: underway material inspection findings and trends of the Board of Inspection and Survey (INSURV) encompassing 2003-2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and addresses the units' ability to self-assess and maintain material readiness. The report shall also include the Navy's plan to maintain material readiness of the Littoral Combat Ship.

- As agreed upon by the congressional defense committees and Navy Legislative leadership, reports that do not contain FY10 budget information will be submitted with the 2 February budget submission to Congress. This report does not contain FY10 budget information.

- The Committee is concerned that the recent INSURV reports have found that certain front line ships of the Navy are unfit for combat operations. In view of the ships' maintenance and readiness implications, additional time is warranted for a more comprehensive assessment of the causal factors.

- TAB A consists of draft letters to the Chairmen of the Defense Committees informing the committees of the Department's intention to complete the analysis and report by March 13, 2009.

RECOMMENDATION: SECNAV sign TAB A and forward to Defense Committees

COORDINATION: TAB B

ATTACHMENTS:
As stated

Prepared By: Ms Suzanne J Gonzales, DNS-6, (703) 614-8450

6F-651307
AASN
RELEASE
2/6/09

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 6, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The FY 2009 National Defense Authorization Act (FY 09 NDAA) Senate Committee Report (110-335) requires the Navy to submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. Specifically, the report must include underway material inspection findings and trends of the Board of Inspection and Survey during 2003-2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and address the units' ability to self-assess and maintain material readiness. The report shall also include the Navy's plan to maintain material readiness of the Littoral Combat Ship.

While the Department's initial intention was to submit the report in February 2009 with the Fiscal Year 2010 Budget submission, a comprehensive assessment of the causal factors will require additional time. We anticipate the analysis and report will be completed by March 13, 2009, at which time it will be forwarded to Congress.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 6, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2009 National Defense Authorization Act (FY 09 NDAA) Senate Committee Report (110-335) requires the Navy to submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. Specifically, the report must include underway material inspection findings and trends of the Board of Inspection and Survey during 2003-2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and address the units' ability to self-assess and maintain material readiness. The report shall also include the Navy's plan to maintain material readiness of the Littoral Combat Ship.

While the Department's initial intention was to submit the report in February 2009 with the Fiscal Year 2010 Budget submission, a comprehensive assessment of the causal factors will require additional time. We anticipate the analysis and report will be completed by March 13, 2009, at which time it will be forwarded to Congress.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 6, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The FY 2009 National Defense Authorization Act (FY 09 NDAA) Senate Committee Report (110-335) requires the Navy to submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. Specifically, the report must include underway material inspection findings and trends of the Board of Inspection and Survey during 2003-2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and address the units' ability to self-assess and maintain material readiness. The report shall also include the Navy's plan to maintain material readiness of the Littoral Combat Ship.

While the Department's initial intention was to submit the report in February 2009 with the Fiscal Year 2010 Budget submission, a comprehensive assessment of the causal factors will require additional time. We anticipate the analysis and report will be completed by March 13, 2009, at which time it will be forwarded to Congress.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 6, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The FY 2009 National Defense Authorization Act (FY 09 NDAA) Senate Committee Report (110-335) requires the Navy to submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. Specifically, the report must include underway material inspection findings and trends of the Board of Inspection and Survey during 2003-2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and address the units' ability to self-assess and maintain material readiness. The report shall also include the Navy's plan to maintain material readiness of the Littoral Combat Ship.

While the Department's initial intention was to submit the report in February 2009 with the Fiscal Year 2010 Budget submission, a comprehensive assessment of the causal factors will require additional time. We anticipate the analysis and report will be completed by March 13, 2009, at which time it will be forwarded to Congress.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. Thank you for your interest in this issue and your continued support. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

COORDINATION PAGE

Organization	Name/Phone	Contact	Date
OLA	Mr Tom Crowley	(703)693-2919	23 JAN 09
DNS-6	Ms Suzanne Gonzales	(703)695-5753	23 JAN 09
FMBE	CAPT Tom Carney	(703)692-6729	04 FEB 09
OLA	RADM Mike Miller	(703)697-7146	04 FEB 09
SAL	CDR Gary Sharp	(703)697-6935	04 FEB 09

REPORT TO CONGRESS

ON

EXPEDITIONARY FIGHTING VEHICLE

Prepared by:
US Marine Corps
Program Executive Officer Land Systems
MCB Quantico, 22134-5000

May 2009

REPORT REQUIREMENT

The FY 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to:

Evaluate cost and risk for alternatives that would improve upon current EFV Initial Operational Capability projections, and accelerate Full Operational Capability to meet the 2020 threat baseline. The Secretary shall report the results of this evaluation to the congressional defense committees with submission of the fiscal year 2010 budget request. The report shall include an assessment of total program cost, annual budget requirements, and technical risk for the accelerated program, and compare these results with the program of record. Additionally, the report shall provide an assessment of the operational impact and risk to amphibious assault capabilities associated with delaying FOC to 2025.

BACKGROUND

As a result of the Nunn-McCurdy recertification process the Navy, Marine Corps, and OSD acquisition leadership established a restructured acquisition strategy which incorporated a Design for Reliability (DFR) program that hinged on critical knowledge points to support key decisions. Arguably the most important of these knowledge points is based on the demonstrated reliability of the System Development and Demonstration-2 (SDD-2) prototypes. The seven new prototypes incorporate the design improvements which came from the DFR activities. The prototypes are currently in fabrication and will begin testing in early FY 2011. The developmental and operational testing of these prototypes will establish the reliability knowledge point and support the Low Rate Initial Production (LRIP) decision in FY 2012. It represents an unacceptable technical and programmatic risk to proceed to LRIP without this information. However, if the quantities in LRIP and Full Rate Production (FRP) were increased to maximum quantities currently supportable by manufacturing processes and tooling IOC could be accelerated from FY 2015 to FY 2014, then Full Operational Capability (FOC) could be accelerated from FY 2025 to FY 2020. The schedules and tables depicted below reflect the current procurement profile and associated funding requirements and what would be required to achieve the previously stated objective.

DESCRIPTION

- Self-deploying, high-water-speed, armored amphibious vehicle.
- A keystone and enabling capability to the Marine Corps' concept of Expeditionary Maneuver Warfare.
- Provides high speed land and water maneuver, highly lethal day/ night fighting ability, and advanced armor and Nuclear Biological Chemical protection to significantly enhance the lethality and survivability of Marine maneuver units.
- Provides the Marine Air Ground Task Force/Expeditionary Strike Group with increased operational tempo, survivability and lethality throughout the battlespace and across the spectrum of conflict.

- Replaces the legacy Amphibious Assault Vehicle
- IOC: 2015/ FOC: 2025 / Approved Acquisition Objective: 573

STATUS

- The SDD-2 Cost Plus Incentive Fee Contract was awarded July 31, 2008.
- On Budget - all Acquisition Program Baseline Agreement (APBA) elements at objective.
- On Schedule, all APBA schedule elements between threshold and objective.
- On track to Demonstrate Performance.
- All Key Performance Parameters (KPP) demonstrated between threshold and objective with exception of reliability and interoperability.
    - Interoperability (Net Ready) is on track to be fully demonstrated before Initial Operational Test & Evaluation (IOT&E).
- The Critical Design Review (CDR) was completed December 16, 2008, with a reliability prediction of 61 hours of Mean Time Between Operational Mission Failure.
    - This prediction indicates that the reliability growth program to meet the reliability KPP is low risk.
- An Overarching Integrated Process Team review of CDR results was held on December 18, 2008, and satisfied the Acquisition Decision Memorandum requirement for Defense Acquisition Board (DAB) review.
- Program Planning and Control
    - General Dynamics Amphibious Systems Corrective Action Plan activities complete.
    - The EFV program conducted an SDD Integrated Baseline Review during 2nd quarter FY 2009 with an outbrief presented on March 17, 2009.

Figure 1 – EFV Program Schedule per APB (August 13, 2007)

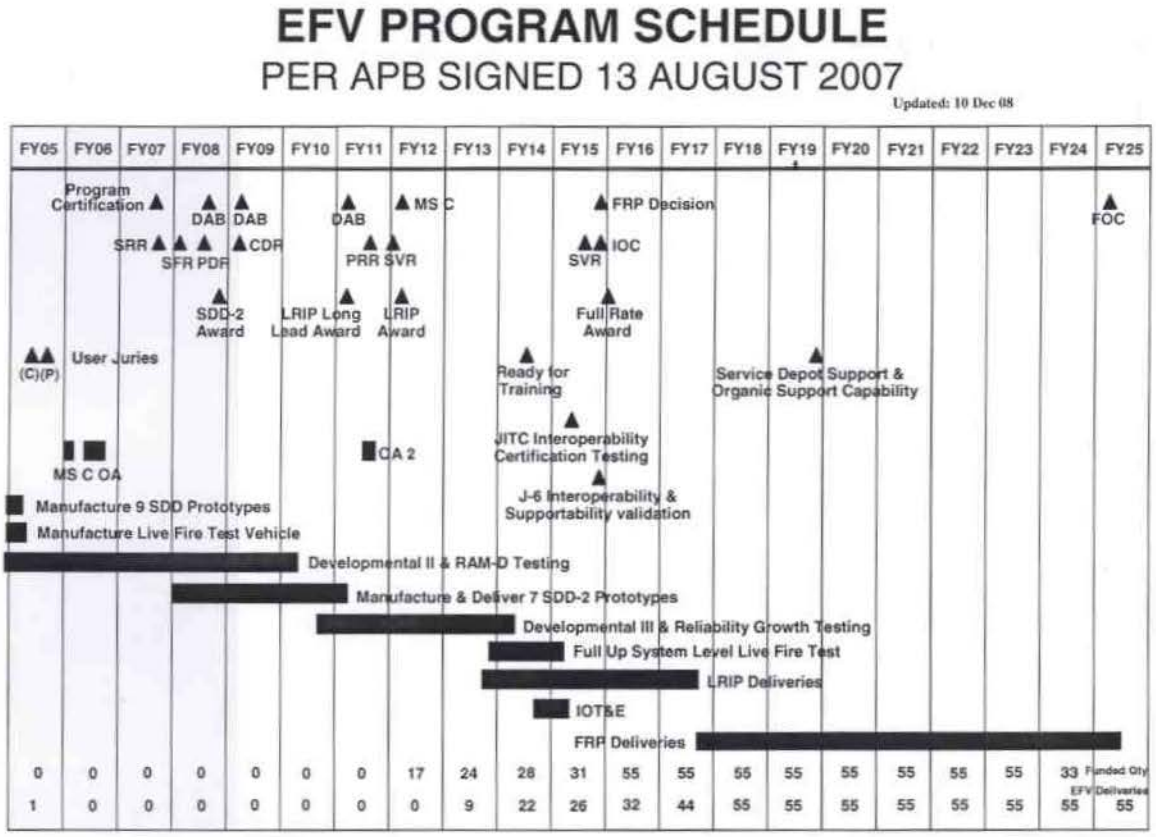


Figure 2 – Notional Accelerated EFV Program Schedule

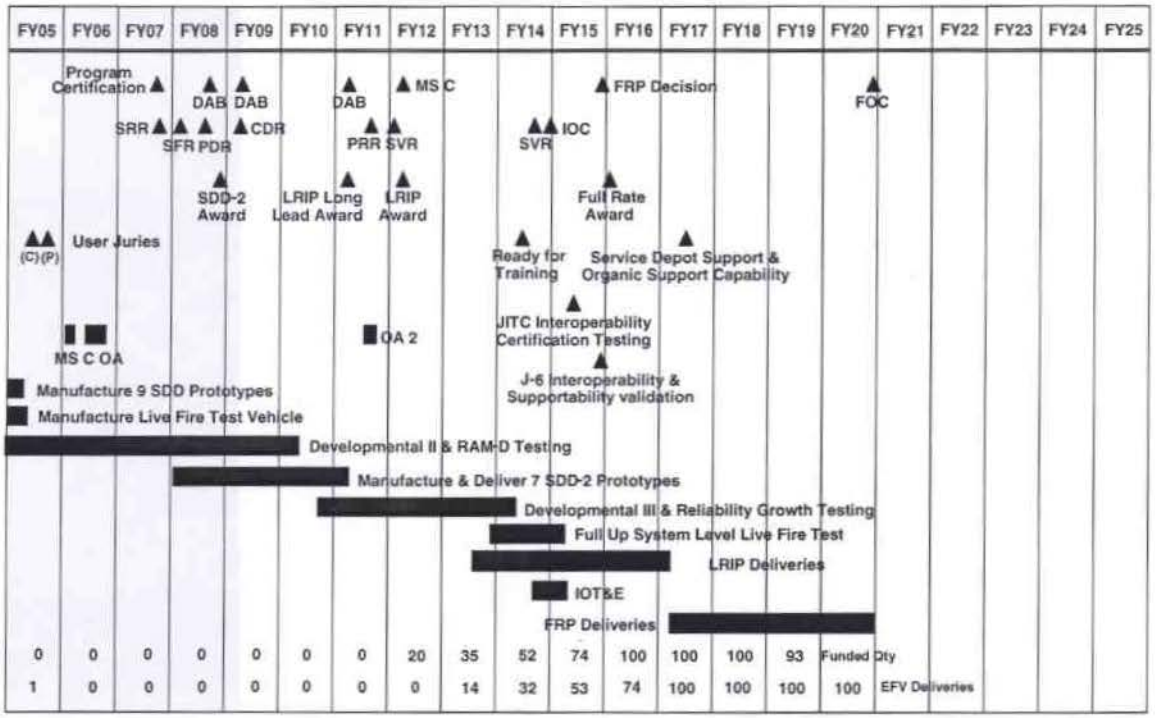


Figure 3 – EFV FY 2009 President's Budget vs. Notional Accelerated Profile

PB 09 VERSUS NOTIONAL ACCELERATED PROFILE

All Figures in TY$M	Prior Years	FY10	FY11	FY12	FY13	FY14	FY15	FY16
PB 09 Quantity	1	-	-	17	24	24	24	55
PB 09 PMC Budget	186	0	35	467	576	587	599	1,131
Acceleration drill Qty	1	-	-	20	35	52	74	100
Acceleration drill PMC	186	0	79	516	778	986	1,342	1,599
DELTA	-	-	44	49	202	399	743	468

All Figures in TY$M	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
Outyear Planned Quantity	55	55	55	55	55	55	55	44	574
Outyear Planned PMC	1,125	1,129	1,148	1,154	1,155	1,162	1,140	889	12,483
Acceleration drill Qty	100	100	92	-	-	-	-	-	574
Acceleration drill PMC	1,534	1,537	1,325	12	9	-	-	-	9,903
DELTA	409	408	177	(1,142)	(1,146)	(1,162)	(1,140)	(889)	(2,580)

Figure 4 – EFV Basic Assumptions and Qualifications

EFV Personnel and Communication Variant Production Allocation

	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	TOTAL
P	0	18	32	48	67	93	91	90	84	523
C	0	2	3	4	7	7	9	10	8	50
TOTAL	0	20	35	52	74	100	100	100	92	573

Other Assumptions and Qualifications

1	Government Program Office operations costs assumed to continue for two years after last year of procurement for line shutdown and transition to O&S.
2	Organic Support Date changed from FY 2019 to mid year FY 2017 as a result of program acceleration. This is a very aggressive assumption given that it normally takes four years after IOC to stand up organic capability.
3	IOC date changed from FY 2015 to FY 2014.
4	Assumes all suppliers and prime contractor demonstrate 95% rate improvement curve in addition to learning for the amortization of fixed costs of operations.
5	Assumes no additional rate tooling required since prime contractor and suppliers were previously tooled to meet a rate of 100 vehicles per procurement year. However, this could be wrong because the tools they are using are based on an older vehicle design and may require some modifications.
6	Accelerated profiles utilizes program office learning curve and T1 which is different that CAIG numbers used to develop current budget controls.

NOTIONAL SCHEDULE ACCELERATION SUMMARY

The fielding of the EFV could be accelerated through a significant increase in the procurement profile. The total procurement savings in then year dollars would be $2.58 billion. In order to accomplish the acceleration, an additional $1.44 billion of procurement funding would need to be added to the program within the Future Year Defense Program. The Average Procurement Unit Cost (APUC) would be reduced from $16.89M to $14.10M (BY07 dollars).

OPERATIONAL IMPACT

The impact of a 2020 FOC for the EFV program is that we attain the capability to conduct a Marine Expeditionary Force-level forcible entry capability (2 Amphibious Assault Echelon Marine Expeditionary Brigades (MEBs) + 1 reinforcing MEB) five years earlier than currently planned. This reduces our global operational risk much earlier than planned and provides a more capable ship to objective platform for any mission, to include Irregular Warfare, five years sooner. The reduction in risk is combined with a significant enhancement of capabilities and would provide operational flexibility to our forces a full five years sooner than currently planned. Alternately, FOC of 2025 will enable the Marine Corps to attain approximately 52 percent of the EFV Approved Acquisition Objective by 2020 providing the majority of vehicles needed to support Marine Expeditionary Unit deployments and provide lift for the assault echelons of two MEBs. We would continue to incur risk in not being able to provide a reinforcing EFV-equipped MEB capability on Maritime Pre-position Force (Future).

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to evaluate cost and risk for alternatives that would improve upon current Expeditionary Fighting Vehicle (EFV) Initial Operational Capability projections, and accelerate Full Operational Capability (FOC) to meet the 2020 threat baseline and to provide a report with the results of the evaluation.

Specifically, the enclosed report provides an assessment of total program cost, annual budget requirements, and technical risk for an accelerated EFV program. As the enclosure states, the developmental and operational testing of the new prototypes, set to begin in 2010, will establish the reliability knowledge point and support the Low Rate Initial Production (LRIP) decision in Fiscal Year 2012. We have reviewed at length, the feasibility of accelerating the LRIP decision point and have determined that it would be premature at this stage to provide such alternative. The program needs to maintain its current priority on systems engineering and risk management discipline. Accelerating the production of the EFV program is heavily dependent on this future testing of prototype vehicles and the verification of system reliability during the remainder of the Engineering and Manufacturing Development phase in Fiscal Year 2012.

Although the enclosure provides a potential production acceleration, the Department of the Navy believes the current program of record represents the best balance of cost, schedule, and technical risk for the Marine Corps at this time. A revised production schedule, to include a potential increase in yearly production quantities, could be addressed concurrent with the LRIP and Full Rate Production decisions, currently scheduled for late Fiscal Year 2012 and 2015, respectively. These and other program considerations are subject to assessment in the broader context of the Quadrennial Defense Review.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to evaluate cost and risk for alternatives that would improve upon current Expeditionary Fighting Vehicle (EFV) Initial Operational Capability projections, and accelerate Full Operational Capability (FOC) to meet the 2020 threat baseline and to provide a report with the results of the evaluation.

Specifically, the enclosed report provides an assessment of total program cost, annual budget requirements, and technical risk for an accelerated EFV program. As the enclosure states, the developmental and operational testing of the new prototypes, set to begin in 2010, will establish the reliability knowledge point and support the Low Rate Initial Production (LRIP) decision in Fiscal Year 2012. We have reviewed at length, the feasibility of accelerating the LRIP decision point and have determined that it would be premature at this stage to provide such alternative. The program needs to maintain its current priority on systems engineering and risk management discipline. Accelerating the production of the EFV program is heavily dependent on this future testing of prototype vehicles and the verification of system reliability during the remainder of the Engineering and Manufacturing Development phase in Fiscal Year 2012.

Although the enclosure provides a potential production acceleration, the Department of the Navy believes the current program of record represents the best balance of cost, schedule, and technical risk for the Marine Corps at this time. A revised production schedule, to include a potential increase in yearly production quantities, could be addressed concurrent with the LRIP and Full Rate Production decisions, currently scheduled for late Fiscal Year 2012 and 2015, respectively. These and other program considerations are subject to assessment in the broader context of the Quadrennial Defense Review.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to evaluate cost and risk for alternatives that would improve upon current Expeditionary Fighting Vehicle (EFV) Initial Operational Capability projections, and accelerate Full Operational Capability (FOC) to meet the 2020 threat baseline and to provide a report with the results of the evaluation.

Specifically, the enclosed report provides an assessment of total program cost, annual budget requirements, and technical risk for an accelerated EFV program. As the enclosure states, the developmental and operational testing of the new prototypes, set to begin in 2010, will establish the reliability knowledge point and support the Low Rate Initial Production (LRIP) decision in Fiscal Year 2012. We have reviewed at length, the feasibility of accelerating the LRIP decision point and have determined that it would be premature at this stage to provide such alternative. The program needs to maintain its current priority on systems engineering and risk management discipline. Accelerating the production of the EFV program is heavily dependent on this future testing of prototype vehicles and the verification of system reliability during the remainder of the Engineering and Manufacturing Development phase in Fiscal Year 2012.

Although the enclosure provides a potential production acceleration, the Department of the Navy believes the current program of record represents the best balance of cost, schedule, and technical risk for the Marine Corps at this time. A revised production schedule, to include a potential increase in yearly production quantities, could be addressed concurrent with the LRIP and Full Rate Production decisions, currently scheduled for late Fiscal Year 2012 and 2015, respectively. These and other program considerations are subject to assessment in the broader context of the Quadrennial Defense Review.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 11 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directed the Secretary of the Navy to evaluate cost and risk for alternatives that would improve upon current Expeditionary Fighting Vehicle (EFV) Initial Operational Capability projections, and accelerate Full Operational Capability (FOC) to meet the 2020 threat baseline and to provide a report with the results of the evaluation.

Specifically, the enclosed report provides an assessment of total program cost, annual budget requirements, and technical risk for an accelerated EFV program. As the enclosure states, the developmental and operational testing of the new prototypes, set to begin in 2010, will establish the reliability knowledge point and support the Low Rate Initial Production (LRIP) decision in Fiscal Year 2012. We have reviewed at length, the feasibility of accelerating the LRIP decision point and have determined that it would be premature at this stage to provide such alternative. The program needs to maintain its current priority on systems engineering and risk management discipline. Accelerating the production of the EFV program is heavily dependent on this future testing of prototype vehicles and the verification of system reliability during the remainder of the Engineering and Manufacturing Development phase in Fiscal Year 2012.

Although the enclosure provides a potential production acceleration, the Department of the Navy believes the current program of record represents the best balance of cost, schedule, and technical risk for the Marine Corps at this time. A revised production schedule, to include a potential increase in yearly production quantities, could be addressed concurrent with the LRIP and Full Rate Production decisions, currently scheduled for late Fiscal Year 2012 and 2015, respectively. These and other program considerations are subject to assessment in the broader context of the Quadrennial Defense Review.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 1 4 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Joint Explanatory Statement accompanying the Duncan Hunter National Defense Authorization Act for Fiscal Year (FY) 2009 directed the Secretary of the Navy to develop and submit to Congress a long-term acquisition strategy for Littoral Combat Ships (LCS) with the submission of the FY 2010 budget request. The current LCS Acquisition Strategy, approved by the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) on October 30, 2008, provides for the FY 2009 ship Request for Proposals (RFP) to include the FY 2010 ship quantities as option items.

Underpinning the long-term acquisition strategy for the LCS program is the recognition that cost performance must improve significantly to be able to afford the requirement for 55 ships of the class. The Navy's approach to meeting this overarching requirement – affordability – builds upon best practices that have proven effective on prior shipbuilding programs: buy to threshold requirements, stabilize design, improve producibility, leverage competition, incentivize cost, procure at efficient rates, pursue commonality, and incentivize facility investments. Achieving these fundamental objectives should enable further significant savings through economic order quantity and multiyear procurements.

To this end, the LCS program is tackling design quality and completeness, reviewing operational and technical requirements to identify cost reduction opportunities, investing in producibility, incentivizing production labor performance improvement, and reviewing opportunities for centralized procurement of common material items. To ensure stable design, FY 2009 and FY 2010 ships include only existing approved engineering changes deemed essential for safety, operability, or affordability, and changes which improve construction procedures. In order to improve the Navy's insight and ability to target meaningful reductions to key cost drivers, the Navy requires that the proposals for the FY 2010 option ships include separately priced contract line items for a core seaframe, core combat system and individual combat system elements. Further, the Navy is pursuing development of a Technical Data Package for both variants in the FY 2010 RFP.

A draft LCS acquisition strategy for FY 2011 and out-year ships is under review within the Department of the Navy which includes all of the affordability factors discussed above. This acquisition strategy will be briefed to the new USD(AT&L) for approval in support of a Milestone B Defense Acquisition Board and prior to procurement of FY 2011 ships. The Navy intends to implement the following key elements in the acquisition strategy:

- Continue to employ competitively awarded, fixed-price type contracts throughout the program.
- Continue to procure both LCS variants. Current assessments provide confidence that both LCS variants will meet class performance requirements. Further, each variant's diverse characteristics offer distinct capabilities highly valued by the warfighter. Accordingly, the Navy will leverage this dual source approach to provide competition to drive cost improvement into the program.
- Pursue commonality opportunities at the component, subsystem, and system level, and will evaluate cost benefits for converting Contractor Furnished Equipment to Government Furnished Equipment for certain systems and components, commencing in FY 2010.
- Assess the respective LCS shipyards' investments and facility improvement plans to determine most efficient near-term and far-term production rates, and use this assessment to inform the programming and budgeting for FY 2011 and out-year LCS quantities.
- Evaluate a block buy or a base contract with options for FY 2011 and FY 2012, potentially followed by a Multiyear Procurement commencing in FY 2013. This approach will provide savings achieved through economic ordering quantities and stable shipyard workload and planning.
- Update the acquisition strategy with the results of operational test and evaluation, Fleet feedback on ship performance and shipbuilder cost performance.
- Pursue the development of a Technical Data Package suitable for production with the FY 2010 awards to enable continued competitive dual-sourcing in the event that the Navy determines it to be necessary, or otherwise preferred, to downselect to a single LCS variant for future ship construction.

The Department of the Navy will provide a full report to Congress discussing the final details of the long-term acquisition strategy for LCS upon approval from USD(AT&L). A similar letter has been sent to Chairmen Skelton, Murtha, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 1 4 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Joint Explanatory Statement accompanying the Duncan Hunter National Defense Authorization Act for Fiscal Year (FY) 2009 directed the Secretary of the Navy to develop and submit to Congress a long-term acquisition strategy for Littoral Combat Ships (LCS) with the submission of the FY 2010 budget request. The current LCS Acquisition Strategy, approved by the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) on October 30, 2008, provides for the FY 2009 ship Request for Proposals (RFP) to include the FY 2010 ship quantities as option items.

Underpinning the long-term acquisition strategy for the LCS program is the recognition that cost performance must improve significantly to be able to afford the requirement for 55 ships of the class. The Navy's approach to meeting this overarching requirement – affordability – builds upon best practices that have proven effective on prior shipbuilding programs: buy to threshold requirements, stabilize design, improve producibility, leverage competition, incentivize cost, procure at efficient rates, pursue commonality, and incentivize facility investments. Achieving these fundamental objectives should enable further significant savings through economic order quantity and multiyear procurements.

To this end, the LCS program is tackling design quality and completeness, reviewing operational and technical requirements to identify cost reduction opportunities, investing in producibility, incentivizing production labor performance improvement, and reviewing opportunities for centralized procurement of common material items. To ensure stable design, FY 2009 and FY 2010 ships include only existing approved engineering changes deemed essential for safety, operability, or affordability, and changes which improve construction procedures. In order to improve the Navy's insight and ability to target meaningful reductions to key cost drivers, the Navy requires that the proposals for the FY 2010 option ships include separately priced contract line items for a core seaframe, core combat system and individual combat system elements. Further, the Navy is pursuing development of a Technical Data Package for both variants in the FY 2010 RFP.

A draft LCS acquisition strategy for FY 2011 and out-year ships is under review within the Department of the Navy which includes all of the affordability factors discussed above. This acquisition strategy will be briefed to the new USD(AT&L) for approval in support of a Milestone B Defense Acquisition Board and prior to procurement of FY 2011 ships. The Navy intends to implement the following key elements in the acquisition strategy:

- Continue to employ competitively awarded, fixed-price type contracts throughout the program.
- Continue to procure both LCS variants. Current assessments provide confidence that both LCS variants will meet class performance requirements. Further, each variant's diverse characteristics offer distinct capabilities highly valued by the warfighter. Accordingly, the Navy will leverage this dual source approach to provide competition to drive cost improvement into the program.
- Pursue commonality opportunities at the component, subsystem, and system level, and will evaluate cost benefits for converting Contractor Furnished Equipment to Government Furnished Equipment for certain systems and components, commencing in FY 2010.
- Assess the respective LCS shipyards' investments and facility improvement plans to determine most efficient near-term and far-term production rates, and use this assessment to inform the programming and budgeting for FY 2011 and out-year LCS quantities.
- Evaluate a block buy or a base contract with options for FY 2011 and FY 2012, potentially followed by a Multiyear Procurement commencing in FY 2013. This approach will provide savings achieved through economic ordering quantities and stable shipyard workload and planning.
- Update the acquisition strategy with the results of operational test and evaluation, Fleet feedback on ship performance and shipbuilder cost performance.
- Pursue the development of a Technical Data Package suitable for production with the FY 2010 awards to enable continued competitive dual-sourcing in the event that the Navy determines it to be necessary, or otherwise preferred, to downselect to a single LCS variant for future ship construction.

The Department of the Navy will provide a full report to Congress discussing the final details of the long-term acquisition strategy for LCS upon approval from USD(AT&L). A similar letter has been sent to Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 14 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Joint Explanatory Statement accompanying the Duncan Hunter National Defense Authorization Act for Fiscal Year (FY) 2009 directed the Secretary of the Navy to develop and submit to Congress a long-term acquisition strategy for Littoral Combat Ships (LCS) with the submission of the FY 2010 budget request. The current LCS Acquisition Strategy, approved by the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) on October 30, 2008, provides for the FY 2009 ship Request for Proposals (RFP) to include the FY 2010 ship quantities as option items.

Underpinning the long-term acquisition strategy for the LCS program is the recognition that cost performance must improve significantly to be able to afford the requirement for 55 ships of the class. The Navy's approach to meeting this overarching requirement – affordability – builds upon best practices that have proven effective on prior shipbuilding programs: buy to threshold requirements, stabilize design, improve producibility, leverage competition, incentivize cost, procure at efficient rates, pursue commonality, and incentivize facility investments. Achieving these fundamental objectives should enable further significant savings through economic order quantity and multiyear procurements.

To this end, the LCS program is tackling design quality and completeness, reviewing operational and technical requirements to identify cost reduction opportunities, investing in producibility, incentivizing production labor performance improvement, and reviewing opportunities for centralized procurement of common material items. To ensure stable design, FY 2009 and FY 2010 ships include only existing approved engineering changes deemed essential for safety, operability, or affordability, and changes which improve construction procedures. In order to improve the Navy's insight and ability to target meaningful reductions to key cost drivers, the Navy requires that the proposals for the FY 2010 option ships include separately priced contract line items for a core seaframe, core combat system and individual combat system elements. Further, the Navy is pursuing development of a Technical Data Package for both variants in the FY 2010 RFP.

A draft LCS acquisition strategy for FY 2011 and out-year ships is under review within the Department of the Navy which includes all of the affordability factors discussed above. This acquisition strategy will be briefed to the new USD(AT&L) for approval in support of a Milestone B Defense Acquisition Board and prior to procurement of FY 2011 ships. The Navy intends to implement the following key elements in the acquisition strategy:

- Continue to employ competitively awarded, fixed-price type contracts throughout the program.
- Continue to procure both LCS variants. Current assessments provide confidence that both LCS variants will meet class performance requirements. Further, each variant's diverse characteristics offer distinct capabilities highly valued by the warfighter. Accordingly, the Navy will leverage this dual source approach to provide competition to drive cost improvement into the program.
- Pursue commonality opportunities at the component, subsystem, and system level, and will evaluate cost benefits for converting Contractor Furnished Equipment to Government Furnished Equipment for certain systems and components, commencing in FY 2010.
- Assess the respective LCS shipyards' investments and facility improvement plans to determine most efficient near-term and far-term production rates, and use this assessment to inform the programming and budgeting for FY 2011 and out-year LCS quantities.
- Evaluate a block buy or a base contract with options for FY 2011 and FY 2012, potentially followed by a Multiyear Procurement commencing in FY 2013. This approach will provide savings achieved through economic ordering quantities and stable shipyard workload and planning.
- Update the acquisition strategy with the results of operational test and evaluation, Fleet feedback on ship performance and shipbuilder cost performance.
- Pursue the development of a Technical Data Package suitable for production with the FY 2010 awards to enable continued competitive dual-sourcing in the event that the Navy determines it to be necessary, or otherwise preferred, to downselect to a single LCS variant for future ship construction.

The Department of the Navy will provide a full report to Congress discussing the final details of the long-term acquisition strategy for LCS upon approval from USD(AT&L). A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,



Sean J. Stackley

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 14 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Joint Explanatory Statement accompanying the Duncan Hunter National Defense Authorization Act for Fiscal Year (FY) 2009 directed the Secretary of the Navy to develop and submit to Congress a long-term acquisition strategy for Littoral Combat Ships (LCS) with the submission of the FY 2010 budget request. The current LCS Acquisition Strategy, approved by the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) on October 30, 2008, provides for the FY 2009 ship Request for Proposals (RFP) to include the FY 2010 ship quantities as option items.

Underpinning the long-term acquisition strategy for the LCS program is the recognition that cost performance must improve significantly to be able to afford the requirement for 55 ships of the class. The Navy's approach to meeting this overarching requirement – affordability – builds upon best practices that have proven effective on prior shipbuilding programs: buy to threshold requirements, stabilize design, improve producibility, leverage competition, incentivize cost, procure at efficient rates, pursue commonality, and incentivize facility investments. Achieving these fundamental objectives should enable further significant savings through economic order quantity and multiyear procurements.

To this end, the LCS program is tackling design quality and completeness, reviewing operational and technical requirements to identify cost reduction opportunities, investing in producibility, incentivizing production labor performance improvement, and reviewing opportunities for centralized procurement of common material items. To ensure stable design, FY 2009 and FY 2010 ships include only existing approved engineering changes deemed essential for safety, operability, or affordability, and changes which improve construction procedures. In order to improve the Navy's insight and ability to target meaningful reductions to key cost drivers, the Navy requires that the proposals for the FY 2010 option ships include separately priced contract line items for a core seaframe, core combat system and individual combat system elements. Further, the Navy is pursuing development of a Technical Data Package for both variants in the FY 2010 RFP.

A draft LCS acquisition strategy for FY 2011 and out-year ships is under review within the Department of the Navy which includes all of the affordability factors discussed above. This acquisition strategy will be briefed to the new USD(AT&L) for approval in support of a Milestone B Defense Acquisition Board and prior to procurement of FY 2011 ships. The Navy intends to implement the following key elements in the acquisition strategy:

- Continue to employ competitively awarded, fixed-price type contracts throughout the program.
- Continue to procure both LCS variants. Current assessments provide confidence that both LCS variants will meet class performance requirements. Further, each variant's diverse characteristics offer distinct capabilities highly valued by the warfighter. Accordingly, the Navy will leverage this dual source approach to provide competition to drive cost improvement into the program.
- Pursue commonality opportunities at the component, subsystem, and system level, and will evaluate cost benefits for converting Contractor Furnished Equipment to Government Furnished Equipment for certain systems and components, commencing in FY 2010.
- Assess the respective LCS shipyards' investments and facility improvement plans to determine most efficient near-term and far-term production rates, and use this assessment to inform the programming and budgeting for FY 2011 and out-year LCS quantities.
- Evaluate a block buy or a base contract with options for FY 2011 and FY 2012, potentially followed by a Multiyear Procurement commencing in FY 2013. This approach will provide savings achieved through economic ordering quantities and stable shipyard workload and planning.
- Update the acquisition strategy with the results of operational test and evaluation, Fleet feedback on ship performance and shipbuilder cost performance.
- Pursue the development of a Technical Data Package suitable for production with the FY 2010 awards to enable continued competitive dual-sourcing in the event that the Navy determines it to be necessary, or otherwise preferred, to downselect to a single LCS variant for future ship construction.

The Department of the Navy will provide a full report to Congress discussing the final details of the long-term acquisition strategy for LCS upon approval from USD(AT&L). A similar letter has been sent to Chairmen Murtha, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 08 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identifies the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 0 8 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identifies the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 0 8 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identifies the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

MAY 0 8 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

As directed by Section 124(e) of the National Defense Authorization Act for Fiscal Year 2006, the enclosed report on Littoral Combat Ship (LCS) mission packages is submitted.

Specifically, the report identifies the composition of each LCS mission package, the estimated cost of LCS mission packages, and the total number of LCS mission packages anticipated.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

LITTORAL COMBAT SHIP MISSION PACKAGES

PREPARED BY
PMS 420
Program Executive Officer
Littoral and Mine Warfare
Washington Navy Yard, DC 20376-7003

May 2009

Table of Contents

Section **Page**

Report Requirement 2

Executive Summary 2

Background 2

Incremental Acquisition Plan 5

Accomplishments 6

Fiscal Year 2010 President's Budget 7

Estimate 7

Embarked Aviation Assets 9

Conclusion 9

Table of Figures

Figure **Page**

Figure 1 – Mission Package Defined 3

Figure 2 – PMS 420 Open Business Model 4

Figure 3 – How It Comes Together 5

Figure 4 – Mission Package System Procurement Baselines 6

Figure 5 – Current Incremental Acquisition Plan 6

Figure 6 – Mission Package Acquisition Profiles 7

Figure 7 – Mission Package Budgeted Cost 8

Figure 8 – Average Weapon System Cost per Mission Package 8

Figure 9 – Embarked Aircraft and Their Organic Mission and Support Systems 9

Report Requirement

Section 124 (e) of the Fiscal Year 2006 Defense Authorization Act, Public Law 109-163, directed *"The Secretary of the Navy shall submit to the Congressional defense committees each year, at the same time as the President's budget for the next fiscal year is submitted under section 1105(a) of title 31, United States Code, a report that provides current information regarding the content of any element of the Littoral Combat Ship (LCS) class of vessels that is designated as a 'mission package,' the estimated cost of any such element, and the total number of such elements anticipated."*

In response to the Fiscal Year 2006 Defense Authorization Act, this report on the status of LCS Mission Package procurement is provided.

Executive Summary

The LCS provides a flexible, scalable and modular warfighting capability that will counter a spectrum of threats in the littorals to assure maritime access for Joint Forces. The LCS is a fast, agile, and networked surface combatant, optimized for operating in the littorals and focused on three primary threats: mines, submarines, and small, fast patrol boats. The underlying strength of the LCS lies in its innovative design approach, applying modularity for operational flexibility. Fundamental to this approach is the capability to rapidly install interchangeable Mission Packages into the Seaframe.

The LCS Mission Packages will provide the Combatant Commanders a modular, focused mission capability to provide assured access against littoral mine, submarine and surface threats. Mission Systems are incrementally added to the Mission Packages as they reach a level of maturity necessary for fielding. These systems provide warfighting capability that will be continuously improved through an evolutionary acquisition development process. Warfighting analysis will be the primary tool for determining which technologies to pursue. Modularity, an Open Business Model, and Open System Architecture are critical to enabling future development.

The Navy has determined that a classified capability will be incorporated into future Anti-Submarine Warfare (ASW) Mission Packages. The existing Program of Record ASW Mission Package procurement is temporarily suspended with the first increment, and performance will be assessed during formal at-sea Developmental Testing.

Background

A Mission Package consists of Mission Modules, Mission Crew and Support Aircraft. Each Mission Package provides warfighting capability for one of three focused mission areas:

- Mine Countermeasures (MCM)
- Surface Warfare (SUW)
- Anti-Submarine Warfare (ASW)

Figure 1 describes the layers that define a Mission Package. The hierarchal concept of modularity that yields a Mission Package fielded onboard an LCS is described in three layers:

- Mission Systems = Vehicles, Sensors, or Weapons
- Mission Module = Mission Systems + Support Equipment + Standard Interfaces
- Mission Package = Mission Modules + Mission Crew + Supporting Aircraft

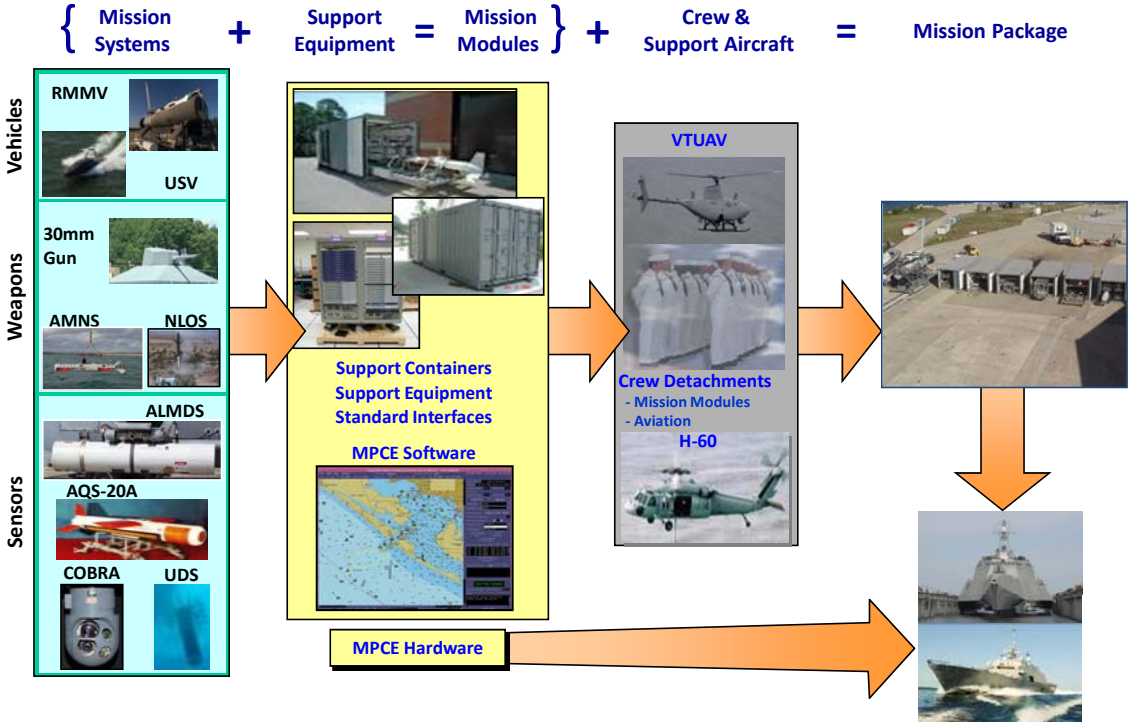


Figure 1 – Mission Package Defined

The ability to modify the LCS configuration changes the operational parameters applied to traditional surface combatants. Mission Packages can be swapped in order to reconfigure the ship for a different mission in a short period of time, giving a Combatant Commander a uniquely flexible response to changing warfighting requirements. To achieve this flexibility, the Navy is developing and procuring specific numbers of Mission Packages to meet the Fleet's warfighting requirements. The quantity of each Mission Package type differs based on analysis of projected operational needs; therefore, Mission Packages are developed and procured separately from the Seaframes. This also allows the LCS warfighting capability to quickly adapt to evolving threats, using improved technology.

Mission Modules combine Mission Systems (vehicles, sensors, weapons) and support equipment that install into the Seaframe via standard interfaces. The Mission Package Computing Environment (MPCE) provides the computing and display resources for all Mission Packages. The MPCE also implements the standard interface between the Mission Packages and the Seaframe Combat Management System (CMS) via the Total Ship Computing Environment. This standardized interface assures that all Mission Packages will work on either Seaframe.

Adhering to government-specified interfaces with the Seaframe and Organic Offboard Vehicles (OOVs) is the critical factor in ensuring a flexible, scalable and modular capability.

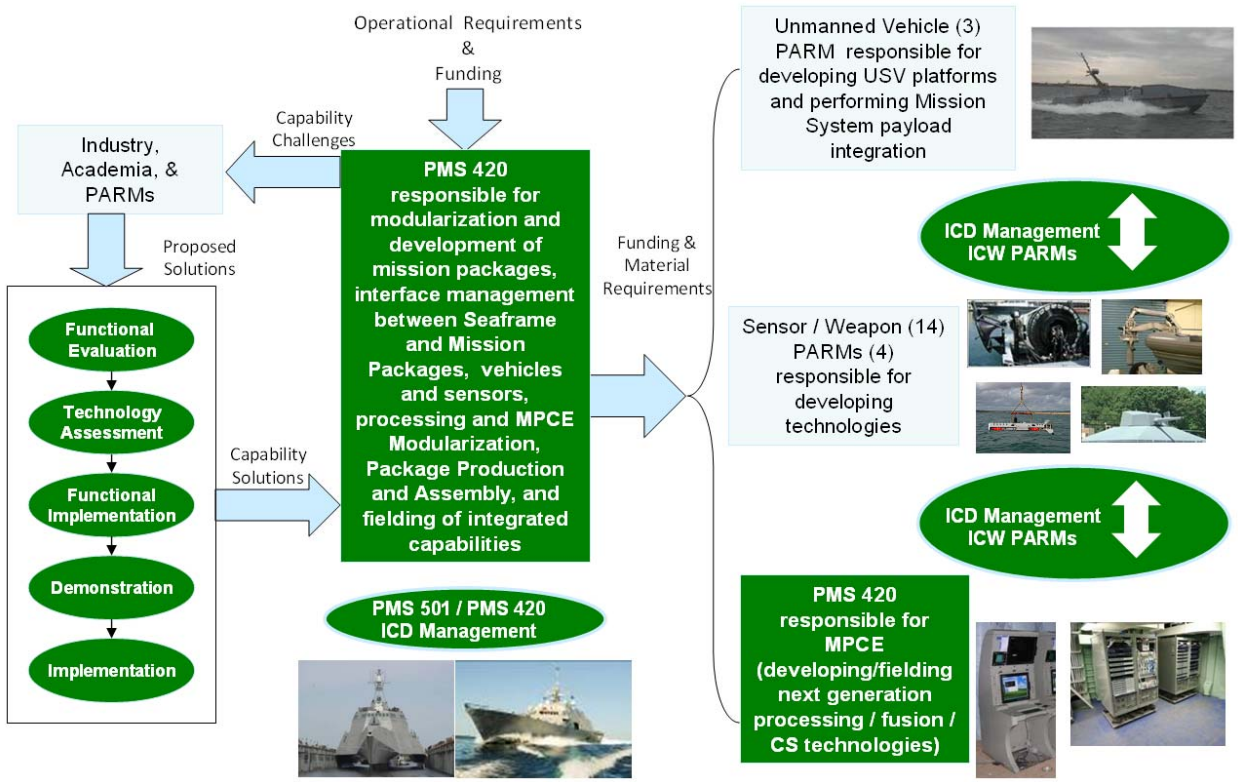


Figure 2 – PMS 420 Open Business Model

The LCS Mission Module Program Office adopted an Open Business Model, shown in Figure 2 which leverages the developmental efforts of Participating Acquisition Resource Managers (PARMs) of both Program-of-Record and Non Program-of-Record systems and components. This process minimizes LCS Mission Module program investments of research and development dollars required to mature technologies. In addition, the process allows for package procurement flexibility by limiting integration of immature technologies/systems. This is done by continuous evaluation of system maturity through a disciplined system engineering framework. Through this Open Business Model, the LCS Mission Modules program procures mature Mission Systems from PARMs and then engages an industry partner for Package Production and Assembly (PP&A) of Mission Packages.

PP&A includes effort associated with transporting systems to a centralized facility where they are assembled, integrated and tested prior to being delivered to the Fleet. This effort also includes costs associated with the facility as well as systems engineering and program management. The nomenclature has been changed for clarity. PP&A was previously called Mission Package Integration (MPI). The extent of PP&A is shown in Figure 3.

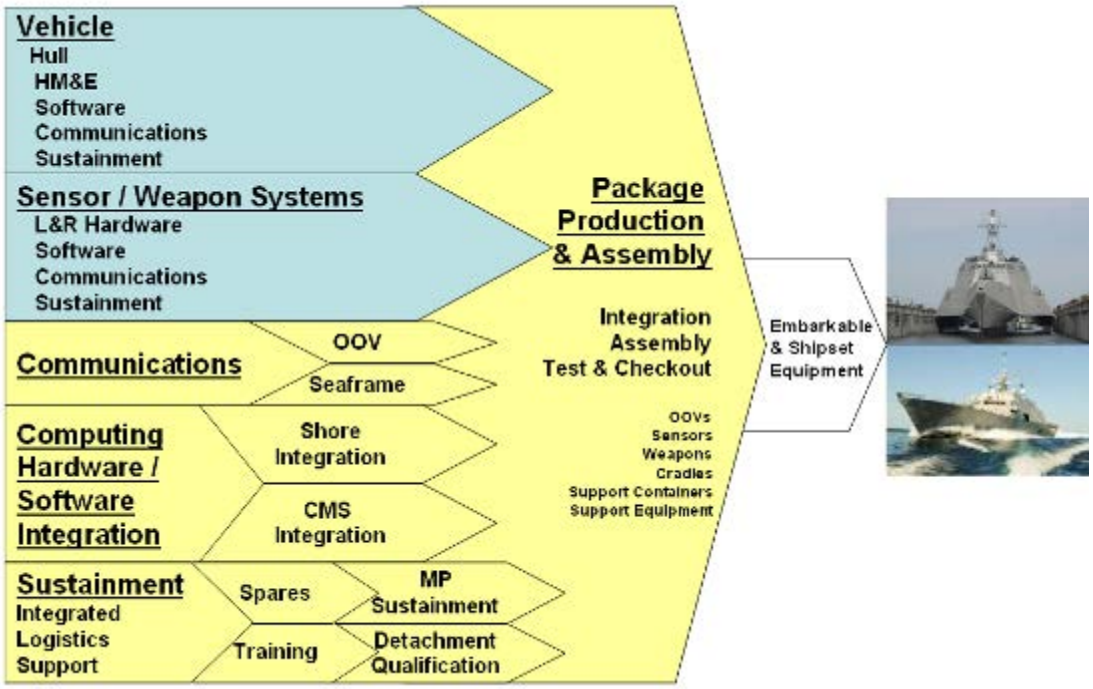


Figure 3 – How It Comes Together

Incremental Acquisition Plan

Mission Package system procurement baselines have been established for each warfare area, as shown in Figure 4, to fill joint warfighting gaps. All of these systems are required to meet threshold performance parameters as defined in the LCS Flight 0+ Capabilities Development Document (CDD) requirements. An incremental approach is being used to field these systems. The current incremental acquisition plan for the MCM, ASW and SUW Mission Packages in Fiscal Year 2010 is shown in Figure 5. The Navy has determined that a classified capability will be incorporated into future ASW Mission Packages. This phased plan provides incrementally improved capability through the introduction of mature programs of record into the respective Mission Packages until the baseline capability defined in the CDD is reached.

The first MCM, ASW and SUW Mission Packages have been delivered on time and on budget. The MCM and SUW Mission Packages provide for initial capability to perform their respective missions. The ASW Mission Package performance will be evaluated during formal Developmental Testing. These results will inform future decisions on ASW Mission Package composition, which are planned to be addressed in the future.

MCM MM	ASW MM	SUW MM
USV w/USSS (x1) RMMV (x2) ALMDS (x1) AN/AQS-20A (x3) AMNS (x1) COBRA (x1) OASIS (x1) RAMICS (x1)	Classified	30 mm Gun Module (x2) Surface-To-Surface Missile Module (x1) Missile Ship-fill Maritime Security Module

Figure 4 – Mission Package System Procurement Baselines

Mine Countermeasures (MCM)

Package #	USV w/USSS	RMMV	RMMV	ALMDS	AQS-20A	AQS-20A	AQS-20A	AMNS	COBRA	OASIS	RAMICS	UUV	Delivery Year
1	E	E		L	L	L		L				E	2007
2	E	L	L	L	L	L	L	L					2009
3	L	P	P	P	P	P	P	P	P				2012

Anti-Submarine Warfare

Package #	USV	USV	UTAS Array	UDS	MSOBS	RMMV	RMMV	MFTA	RTAS	Delivery Year
1	E	E	E	P	E					2008

Surface Warfare

Package #	30MM Gun	30MM Gun	NLOS-LS	NLOS Shipfill	Maritime Security	Delivery Year
1	E	E				2008
2	E	E	E			2009
3	E	E	E			2011

NOTE: E = Engineering Development Model (EDM), L = Low Rate Initial Production (LRIP), P = Production
= Delivered

Figure 5 – Current Incremental Acquisition Plan

* Based on Fiscal Year 2009 Congressional Marks, Fiscal Year 2009 MCM Mission Package PP&A efforts have not been funded. Without PP&A funding and other Fact-of-Life changes, the LCS Mission Program is unable to deliver the Fiscal Year 2009 Mission Package.

Accomplishments

PMS 420, the LCS Mission Modules Program Office, is chartered to perform acquisition and life cycle management of Mission Packages.

The first SUW and ASW Mission Packages were rolled out in Fiscal Year 2008 and joined the first MCM Mission Package, which was delivered in Fiscal Year 2007. Land-based and at-sea testing of Mission Package components began in Fiscal Year 2008 and continues in Fiscal Year 2009. Formal testing of Mission Packages commences in Fiscal Year 2009 and continues through Fiscal Year 2010. A revised CDD for Flight 0+ Seaframes and Mission Packages was approved by the Joint Requirements Oversight Council (JROC) in Fiscal Year 2008. The updated document clarifies previous Detect-to-Engage Key Performance Parameters (KPP) and details two new JROC-mandated KPPs: Mission Package Detachment Train-to-Certify and a Materiel Availability (Am).

Fiscal Year 2010 President's Budget

The Mission Modules Program has made several adjustments to the Mission Package acquisition profiles, which are documented in the Fiscal Year 2010 President's Budget request combined with fact-of-life changes, as illustrated in Figure 6. Reductions in Fiscal Year 2009 Budget requests have slowed Mission Package procurement to account for delays in seaframe acquisition.

- Mission Package procurement and PP&A costs have increased in the FY 2010 President's request due to a two year hiatus in MCM Mission Package Procurement and realignment of Mission Package procurements to better conform to seaframe procurement rates.
- The Fiscal Year 2006 ASW Mission Package procurement has resulted in an initial increment that includes Engineering Development Models of an expected baseline ASW Mission Package. Performance is being assessed during at-sea Developmental Testing. Follow-on ASW Mission Packages will consist of advanced capabilities under development including classified programs. An ASW inventory objective of sixteen (16) Mission Packages remains. Results from the initial ASW Mission Package and the following advanced capabilities will inform future decisions on ASW Mission Package composition.
- MCM Mission Package inventory objective of twenty four (24) remains.
- SUW Mission Package inventory objective of twenty four (24) remains.
- Maritime Security Module of the SUW Mission Package inventory objective changed from one (1) per SUW Mission Package to one (1) per Seaframe for a total inventory of fifty-five (55) modules.

Year	FY05	FY06	FY07	FY08	FY09	FY10	To Complete	Total
PB 09								
MCM	1	0	1	0	2	2	18	24
ASW	0	2	0	0	0	0	14	16
SUW	0	1	1	0	1	1	20	24
PB09	1	3	2	0	3	3	52	64
PB 10								
MCM	1	0	1	0	0	1	21	24
ASW	0	1						
SUW	0	1	1	0	1	1	20	24
PB10	1	2	2	0	1	2	56	64

Changes from PB09

Figure 6 – Mission Package Acquisition Profiles

Estimate

Figure 7 provides a detailed breakdown of the Mission Package costs and prices per fiscal year. The MPCE and Off-board Communications are procured as a shipset to match Seaframe inventory numbers, not per Mission Package, and are therefore shown separately. MPCE and

Off-board Communications quantities include procurements for shore sites. These sites are necessary for training and integration efforts and are therefore included in the total MPCE and Off-board Communications quantities.

			All Values are in $ K	Prior Years	FY08	FY09	FY10	Total
Acquisition Cost			**Acquisition Cost**	**$ 476,902**	**$ 98,072**	**$ 243,449**	**$ 300,404**	**$ 1,118,827**
	RDT&E,N		**Development Costs**	**$ 361,861**	**$ 98,072**	**$ 169,765**	**$ 163,145**	**$ 792,843**
			MCM	$ 68,474	$ 10,719	$ 23,118	$ 12,416	**$ 114,727**
			ASW	$ 122,055	$ 20,700	$ 5,993	$ 10,795	**$ 159,543**
			SUW	$ 91,729	$ 36,300	$ 67,450	$ 66,784	**$ 262,263**
			Common Mission Module Development	$ 71,364	$ 22,506	$ 62,887	$ 64,233	**$ 220,990**
			Over-The-Horizon Communication	$ 8,239	$ 7,847	$ 10,317	$ 8,917	**$ 35,320**
	Weapon System Cost (OP,N)		**Weapons System Cost**	**$ 115,041**	**$ -**	**$ 73,684**	**$ 137,259**	**$ 325,984**
		Prime Equip. & Support Items (OPN)		***$ 115,041***	***$ -***	***$ 73,684***	***$ 117,147***	***$ 305,872***
			MCM	$ 96,891	$ -	$ 73,218	$ 84,333	**$ 254,442**
			ASW	$ 18,150	$ -	$ -	$ -	**$ 18,150**
			SUW	$ -	$ -	$ -	$ 23,480	**$ 23,480**
			MPCE/Off-board Comms		$ -	$ 466	$ 9,334	**$ 9,800**
		PPA (OPN)	***Package Production and Assembly (PPA)***	***$ -***	***$ -***	***$ -***	***$ 20,112***	***$ 20,112***
			MCM	$ -	$ -	$ -	$ 14,478	**$ 14,478**
			ASW	$ -	$ -	$ -	$ -	**$ -**
			SUW	$ -	$ -	$ -	$ 4,031	**$ 4,031**
			MPCE/Off-board Comms	$ -	$ -	$ -	$ 1,602	**$ 1,602**

	Prior Years	FY08	FY09	FY10	Total
R&D Quantities	**4**	**0**	**1**	**0**	**5**
MCM	1	0	0	0	1
ASW	1	0	0	0	1
SUW	2	0	1	0	3
Procurement Quantities	**1**	**0**	**0**	**2**	**3**
MCM	1	0	0	1	2
ASW	0	0	0	0	0
SUW	0	0	0	1	1

Note: Table data is based on actual budget execution in previous years for MCM, ASW, and SUW; PB10 controls for all other budget years, including FY09 Congressional Adjustments combined with fact-of life changes in OPN reduced 1 MCM MP.

Figure 7 – Mission Package Budgeted Cost

The Navy uses the Program Life Cycle Cost Estimate (PLCCE) to determine the program cost requirements. The Program Manager updates the PLCCE at least annually. The program is fully funded to PLCCE. Prior reporting of costs are updated to reflect average Weapon System Cost based on most recent PLCCE and are provided in Figure 8 for each baseline Mission Package.

Base Year (FY05$M)	**MCM**	**ASW**	**SUW**
Average Weapon System Cost	**$89.8M**	**Classified**	**$19.6M**

Figure 8 – Average Weapon System Cost per Mission Package

Embarked Aviation Assets

Each Mission Package employs embarked aircraft and their organic mission and support systems, as shown in Figure 9. These aircraft and systems are procured and maintained separately from the LCS and LCS Mission Modules programs.

	Mine Countermeasures (MCM)	**Anti-Submarine Warfare (ASW)**	**Surface Warfare (SUW)**
Aircraft	MH-60S MQ-8B (VTUAV)	MH-60R MQ-8B (VTUAV)	MH-60R MQ-8B (VTUAV)
Aircraft Mission Systems	MH-60S • CSTRS • Common Console • Aux Fuel Tank MQ-8B • EO/IR Sensor	MH-60R • ALFS • Sonobuoys • MK54 Torpedo MQ-8B • EO/IR Sensor	MH-60R • Crew Served Guns • Hellfire missiles MQ-8B • EO/IR Sensor

Figure 9 – Embarked Aircraft and Their Organic Mission and Support Systems

Conclusion

The LCS Mission Modules program provides the fleet with a modular, focused mission capability to counter littoral mine, submarine and surface threats. It uses a phased development approach that introduces systems as they mature and provides the basis for the future insertion of new technologies. Funding is consistent with cost estimates and the procurement plan is aligned with the LCS Seaframe schedule.

APPENDIX

ABBREVIATIONS

ALFS	Airborne Low Frequency Sonar
ALMDS	Airborne Laser Mine Detection System
Am	Materiel Availability
AMNS	Airborne Mine Neutralization System
ASW	Anti-Submarine Warfare
CDD	Capability Development Document
CMS	Combat Management System
COBRA	Coastal Battlefield Reconnaissance and Analysis
CSTRS	Carriage, Stream, Tow and Recovery System
EO/IR	Electro Optic/Infrared
ICD	Initial Capabilities Document
ICW	Interactive Courseware
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameters
LCS	Littoral Combat Ship
MCM	Mine Countermeasures
MFTA	Multi-Function Towed Array
MPCE	Mission Package Computing Environment
MPI	Mission Package Integration
MSOBS	Multi-Static Off-Board Source
NLOS-LS	Non Line-of Sight Launching System
OASIS	Organic Air and Surface Influence Sweep
OOV	Organic Offboard Vehicle
OPN	Other Procurement, Navy
PARM	Participating Acquisition Resource Manager
PLCCE	Program Life Cycle Cost Estimate
PP&A	Package Production and Assembly
RAMICS	Rapid Airborne Mine Clearance System
RDTEN	Research Development Technology and Evaluation, Navy
RMMV	Remote Multi Mission Vehicle
RTAS	Remotely Towed Active Source
SUW	Surface Warfare
UDS	USV Dipping Sonar
USV	Unmanned Surface Vehicle
UTAS	USV Towed Array System
VTUAV	Vertical Take-off Unmanned Aerial Vehicle

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

IN REPLY REFER TO

ACTION MEMO

February 4, 2009

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

SUBJECT: LOS ANGELES Class Submarine Life Extensions Report to Congress

- Mr. Secretary, request you sign the letters at TAB A and forward with the report at TAB B to Chairmen of the four Defense Committees in response to the House Armed Services Committee Report (House Report 110-652) accompanying the FY09 National Defense Authorization Act (H.R. 5658). House Report 110-652 directed SECNAV to assess the feasibility and cost of extending the service life of all current LOS ANGELES Class submarines, and explore the options in the near term which would fully utilize all available hull life and maximize the total number of attack submarines available after 2016.
- This report is due to Congress by February 10, 2009.
- This report builds on the Navy's 2007 assessment (TAB C), using recent data and projections, and expands the review to all LOS ANGELES Class submarines available after 2016.
    - This report also discusses the negative effects of other potential short-term mitigations such as cancelling SSN deployments and limiting SSN op-tempo. The report finds that these mitigations lead to adverse impacts on SSN forward presence and degraded war-fighting surge readiness. Therefore, these options should not be pursued.
    - This report concludes that by using existing fuel conservation practices and careful maintenance, up to 28 LOS ANGELES Class submarines could be extended, creating an extra 13 additional SSN-years of availability. The projected cost to extend all 28 ships is $956M.
- RECOMMENDATION: SECNAV sign letters at TAB A.

COORDINATION: TAB D

11/6/2009

AASN
RELEASE

ATTACHMENTS:
As stated

Prepared By: CDR Steven Debus, N871D, (703) 614-9410

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 11, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The House Armed Services Committee Report (House Report 110-652) that accompanied the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 5658) directed the Secretary of the Navy to provide a report assessing the feasibility and cost of extending the service life of all *Los Angeles* class submarines. The committee also directed the Navy to explore near-term options to fully utilize all available hull life and maximize the total number of attack submarines available after 2016.

The enclosure to this letter provides the results of the Navy's assessment as requested. This report builds on the Navy's 2007 assessment, using recent data and projections, and expands the review to all *Los Angeles* class submarines available after 2016. The Navy looks forward to continuing to work with Congress in addressing this important issue.

A similar letter has been sent to Chairmen Levin, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy (w/enclosure) to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 11, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The House Armed Services Committee Report (House Report 110-652) that accompanied the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 5658) directed the Secretary of the Navy to provide a report assessing the feasibility and cost of extending the service life of all *Los Angeles* class submarines. The committee also directed the Navy to explore near-term options to fully utilize all available hull life and maximize the total number of attack submarines available after 2016.

The enclosure to this letter provides the results of the Navy's assessment as requested. This report builds on the Navy's 2007 assessment, using recent data and projections, and expands the review to all *Los Angeles* class submarines available after 2016. The Navy looks forward to continuing to work with Congress in addressing this important issue.

A similar letter has been sent to Chairmen Skelton, Inouye and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy (w/enclosure) to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 11, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The House Armed Services Committee Report (House Report 110-652) that accompanied the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 5658) directed the Secretary of the Navy to provide a report assessing the feasibility and cost of extending the service life of all *Los Angeles* class submarines. The committee also directed the Navy to explore near-term options to fully utilize all available hull life and maximize the total number of attack submarines available after 2016.

The enclosure to this letter provides the results of the Navy's assessment as requested. This report builds on the Navy's 2007 assessment, using recent data and projections, and expands the review to all *Los Angeles* class submarines available after 2016. The Navy looks forward to continuing to work with Congress in addressing this important issue.

A similar letter has been sent to Chairmen Skelton, Levin, and Inouye. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy (w/enclosure) to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

February 11, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The House Armed Services Committee Report (House Report 110-652) that accompanied the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 5658) directed the Secretary of the Navy to provide a report assessing the feasibility and cost of extending the service life of all *Los Angeles* class submarines. The committee also directed the Navy to explore near-term options to fully utilize all available hull life and maximize the total number of attack submarines available after 2016.

The enclosure to this letter provides the results of the Navy's assessment as requested. This report builds on the Navy's 2007 assessment, using recent data and projections, and expands the review to all *Los Angeles* class submarines available after 2016. The Navy looks forward to continuing to work with Congress in addressing this important issue.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure

Copy (w/enclosure) to:
The Honorable Thad Cochran
Ranking Minority Member

Report to Congress on

Extending the Service Life of All Current Los Angeles Class Submarines

PREPARED BY:
Director, Submarine Warfare
Chief of Naval Operations, N87
2000 Navy Pentagon, Room 5C459
Washington, DC 20350-2000

January 2009

Direction

The House Armed Services Committee Report (House Report 110-652) accompanying the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 5658) contained the following direction:

"The Secretary of the Navy has conducted an assessment of the feasibility of extending the service life of certain SSN–688 Los Angeles class submarines to mitigate the projected shortfall in the Navy's attack submarine force structure. The committee is encouraged by this effort, but notes that the assessment did not explore options that would increase the number of attack submarines above 48, in the long-term. The committee also notes that the assessment did not explore options for limiting deployments or other actions that could limit hull fatigue in the near term, in order to conserve service life of more Los Angeles class submarines over the long-term.

"Therefore, the committee directs the Secretary of the Navy to submit a report which includes an assessment of the feasibility and cost of extending the service life of all current Los Angeles class submarines. This report should explore the options in the near term which would fully utilize all available hull life and maximize the total number of attack submarines available after 2016. The committee directs the Secretary to submit this report within 120 days after the date of enactment of this Act."[1]

Executive Summary

The Navy completed an internal assessment in early 2007 that explored ways to mitigate the SSN trough and associated increase to operational risk that will occur from 2022 to 2033. The most important step identified was promptly reaching and sustaining a Virginia class SSN build rate of two per year. Beyond this, the Navy identified the additional mitigation tools of reducing the time to build each SSN and extending the service life of selected SSNs.

The Navy has already made progress in shortening the time to build each SSN from 72 to 66 months as part of the Virginia class SSN cost reduction program. This has the effect of adding one submarine to the force, thereby delaying the onset of the SSN force structure trough.

The Navy has aggressively worked to maximize the service life of nuclear submarines. These efforts include fuel conservation measures and technical assessments of hull, mechanical and electrical component limitations. The Navy has extended the service life of Los Angeles class submarines from 30 to 33 years and Ohio class submarines from 30 to 42 years. Fuel conservation measures for Los Angeles class submarines are in place to create fuel availability that may allow additional extensions beyond 33 years for selected hulls.

It is not feasible to extend all Los Angeles class submarines. Even with the Navy's fuel conservation protocols, operational demand will prevent some submarines from having fuel sufficient for a ship life beyond 33 years. Of the current force of 45 Los Angeles class submarines, 28 could be extended to impact the time period after 2016, for an estimated cost of

[1] This report only addresses extending Los Angeles class submarines, as requested in the committee direction, but the rationale could be equally applied to the three Seawolf class submarines.

$956M (FY09$). Changes in future operating patterns and the assessed material condition of these ships may reduce this number as the ships approach their current end of service life. Only 11 of the proposed extensions (costing $526M, FY09$) help fill the SSN force level trough, providing about 13 more SSN-years of operation. Combined with the continued production of Virginia Class submarines at two ships per year and continued efforts to reduce the time to build each SSN, these selected extensions represent the most effective means of minimizing the SSN force structure shortfall.

In its assessment, the Navy considered a wide spectrum of ways to enable extending submarine service life. Methods of enabling service life extension such as reduced operating tempo or cancelled deployments were evaluated in this report and found not to be operationally feasible. The Navy has established fuel conservation and careful maintenance practices to enable service life extensions and help mitigate force structure shortfalls.

Service Life Extension

Extending the life of a submarine is a function of a combination of technical, operational and other factors (Figure 1). The technical factors include such considerations as material condition, fuel supply and maintenance requirements. Operational factors include impact on forward presence and war-fighting readiness. Other factors include additional costs (maintenance, operations, manpower and modernization) and reliability considerations.

FIGURE 1: Extension Factors

Service Life Extension Factors

Technical
- -- Material Condition
- -- Available Fuel
- -- Maintenance Requirements
- -- Technical Uncertainty

Operational
- -- Demand for Forward Presence
  - - Deployments
- -- War-Fighting Surge Readiness
  - - Deployments
  - - Fleet Response Training

Other
- -- Affordability
  - - Maintenance Costs
  - - Operations Costs
  - - Manpower Costs
  - - Modernization Costs
- -- Reliability

Technical factors: The remaining service life for each SSN is generally constrained by the amount of available fuel and the material condition of critical systems (including the hull). Other factors that play important but lesser roles include the need for periodic drydocking and the technical uncertainty in the condition of various difficult-to-monitor components.

The service life remaining for any given ship can be estimated but cannot be known with precise confidence. World events may require future operations at an accelerated pace for some period of time, thereby consuming fuel, increasing wear and leading to a shorter service life. Similarly, the material condition of one or more systems may degrade faster than expected due to unavoidable variation in the way each ship is operated and employed during its lifetime.

The various technical factors that influence the ability to extend submarine service life will be periodically evaluated for the various candidate ships.

Operational factors: Submarines provide the Navy with forward presence on a day-to-day basis and provide war-fighting surge capacity to enable quick and robust response to contingencies. The rate at which a submarine's equipment wears out and fuel is consumed is a

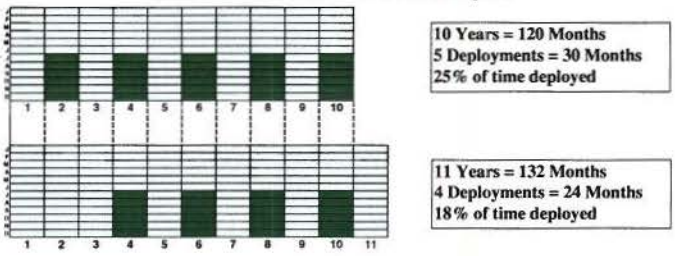
function of the way the submarine is operated to deliver presence and surge capacity. This includes the operating tempo of each ship, the number and nature of its deployments, and a variety of factors (such as speed) that the Navy carefully regulates to manage fuel use. Decisions about operating tempo and deployments cannot be made without careful consideration of the impact on forward presence and war-fighting surge capacity.

In the 2007 assessment, some submarines were projected to have fuel available for limited service life extensions if other factors permit. This available fuel was the result of careful fuel management during planned operations, not the result of intentional efforts to limit underway time or deployments.

Extensions beyond those enabled within the existing operational plan for deployments and inter-deployment training could only be achieved by constraining operations today to make fuel available for tomorrow.

- **Canceling deployments:** Canceling deployments to achieve additional fuel savings would result in short duration extensions and reduced forward presence, which in turn would lead to reduced intelligence collection, reduced crew operational experience, and degraded war-fighting proficiency. For example, a Los Angeles class submarine with ten years of life left should make five more deployments of 6 months each. However, if a 6-month deployment is cancelled to enable a one-year extension in service life (an optimistic assumption), the SSN will now be deployed only 24 months out of the next 132 (Figure 2). If done across all current Los Angeles class submarines, this would be the equivalent of taking 13 of 45 submarines out of the deployment rotation.

  FIGURE 2: Extension Example

  Because of the negative impact on forward presence and war-fighting readiness, the Navy does not consider canceling SSN deployments as an operationally feasible means to extend the service life of individual SSNs.

- **Limiting operating tempo between deployments:** Another option is to preserve the number of deployments but save fuel by limiting underway operations between deployments. This option creates the potential for short extensions, but at the cost of crew proficiency and Navy readiness.

  The underway schedule between deployments is designed to prepare a submarine and crew for deployment and war-fighting; it also serves to prepare other parts of the Navy team for deployment as well. In the last ten years, the Navy and the submarine force have reduced operating tempo between deployments for fuel conservation and quality of life reasons. As a result, Operational Commanders fiercely protect the remaining underway training time and carefully manage it to ensure proper proficiency is achieved. Constraining these training and proficiency operations will directly impact readiness.

For example, a Los Angeles class SSN with ten years of life left (5 deployment cycles), will nominally spend 6 months at-sea training between each deployment (30 months total of at-sea training over ten years). Reducing that operating tempo between deployments by 10 percent would save 3 additional months of underway time. These three months of underway time could potentially (but not necessarily) enable an extension of about nine months.

As with the case of canceling deployments, these extensions would not create additional deployments and therefore would not contribute to critical forward presence. Moreover, reduced crew training time at sea would adversely impact submarine war-fighting proficiency and readiness. Because of these detrimental effects and the short extensions achieved, the Navy does not consider reductions in underway time between deployments as an operationally feasible means of extending SSN service life.

The option of extending the service life of nuclear submarines by suspending their operational service (for example, mothballing) represents an example of eliminating deployments and decreasing operating tempo. Placing nuclear submarines in a reduced status is not prudent from a standpoint of public and regulatory policy, nor is it prudent from a technical, personnel, mobilization, or fiscal viewpoint. [2] This option was evaluated and found not to be feasible.

In summary, the Navy supports carefully regulating the conduct of required operations so that they can be accomplished efficiently and effectively. Detailed procedures are already in place to do this today and are currently resulting in increased projected fuel availability in the majority of the SSN force.[3] Overall, the Navy does not endorse restricting deployments or limiting underway operational training as a means of extending the life of submarines.

Other factors such as reliability and affordability: Operational experience indicates that older submarines are more prone to material problems that impact their ability to complete in-port maintenance on time and remain at sea for the duration of planned operations. Empirical data shows that maintenance costs go up substantially as ships age.

The cost of extending the life of submarines includes added drydocking, operations and maintenance, and manpower. Extending the life of submarines often requires an additional dry-docking period to certify the safety of continued submerged operation. Some submarines would require an additional drydocking availability at a cost of about $25M (FY09$) each.[4] The longer the extension, the more likely it is that a certification drydocking would be required. In addition to drydock costs, each year of additional operation of an SSN means an additional $10M (FY09$) in operations and maintenance costs and an additional $9.9M (FY09$) in manpower costs. Furthermore, submarines planned for extension could require additional modernization that is not currently budgeted.

---

[2] Memorandum for the Secretary of Defense, "Nuclear Powered Submarine Lay-Up," dated 28 April 1992.

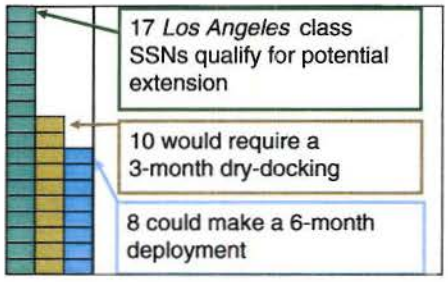
[3] It is important to remember that one or more operational contingencies may occur that might consume this projected surplus. There is uncertainty in the nature of required future operations and its impact on fuel availability.

[4] The estimated cost is based on having adequate public shipyard capacity. Additional cost may be incurred depending on the ability of public shipyards to support the required work.

The Limiting Case of Feasible Los Angeles class Extensions:

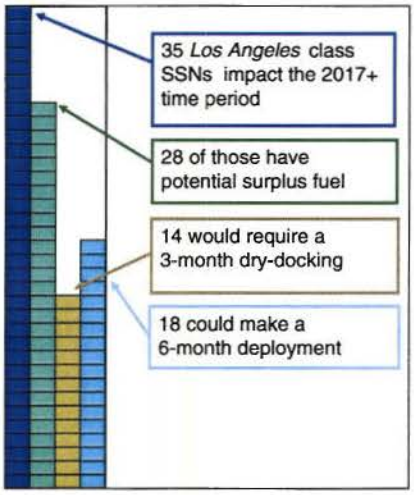
In the 2007 internal assessment, 17 Los Angeles class submarines were projected to have enough fuel to be potentially extended to impact the SSN trough (the 2022 to 2033 period). To achieve this, 10 of the 17 would require an additional drydocking availability and 8 of the 17 were estimated to have enough fuel to also be capable of performing an additional, unplanned deployment (Figure 3).

FIGURE 3: 2007 Navy Analysis



The same analysis used for the 2007 internal assessment was repeated using updated fuel consumption data, and the scope was revised to consider all Los Angeles class SSNs, not just the SSNs that would help fill the SSN trough. There are 35 Los Angeles class SSNs that could impact the timeframe after 2016. Of those 35 Los Angeles class SSNs, 28 are on a fuel-use pace that would enable service-life extensions, with the average potential extension being about 13 months. Of those 28, 14 would require drydocking availabilities of about 3 months in duration. Based on current fuel consumption rates and timing of the last overhaul, 18 of the 28 would qualify for an additional 6-month deployment (Figure 4).

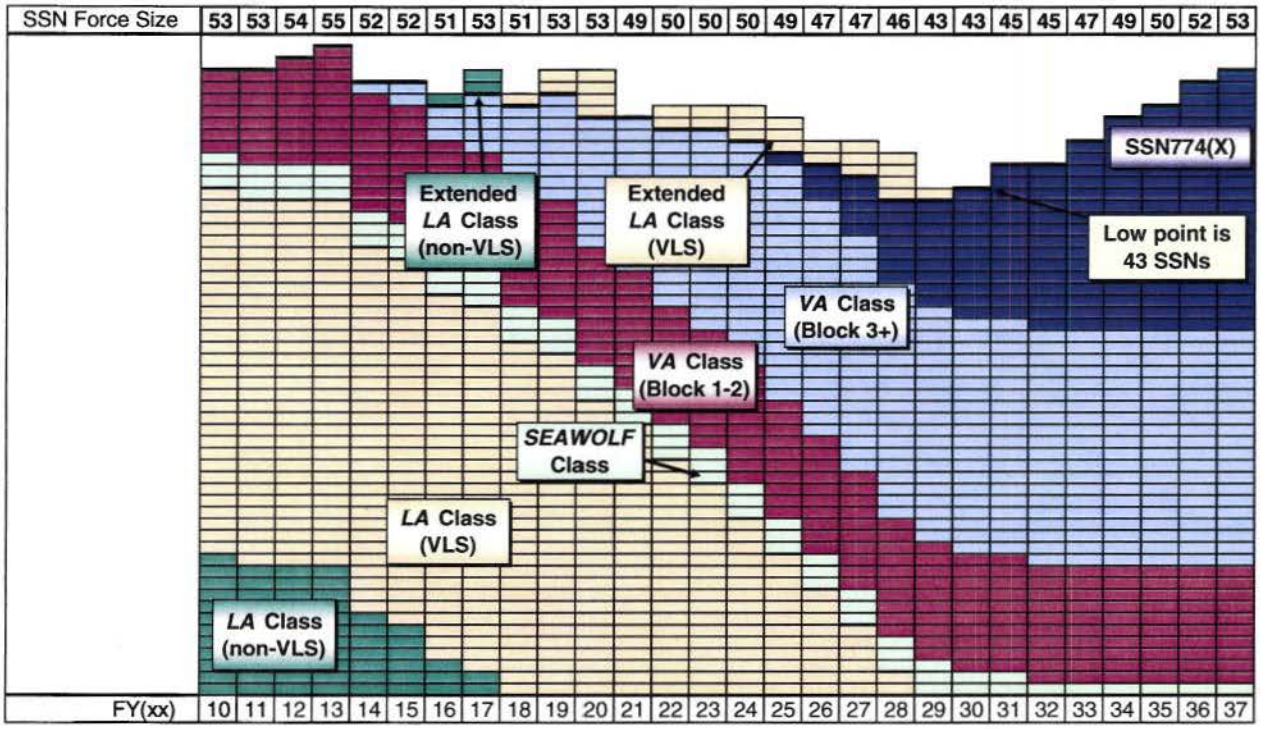
FIGURE 4: Possible 2017+ Extensions



The cost of these 28 extensions, again using the same rule set as the previous internal assessment, would be about $956M (FY09$) in total. This includes factors such as drydocking required for certification or periodic maintenance, additional manpower costs, and additional operations and maintenance costs. It does not include the fact that maintenance availabilities for older ships tend to be more costly or the potential cost of needed modernization.

If all of the Los Angeles class submarines that could be extended based on current planned available fuel were extended, the impact on force structure (the number of SSNs) would be as shown in Figure 5. A corresponding impact on war-fighting surge capacity would also follow. All of the extended submarines would be fully trained and ready to support war-fighting operations to the same standards they are today. However, the impact on forward presence, though positive, would be limited because not all of the extended SSNs will deploy.

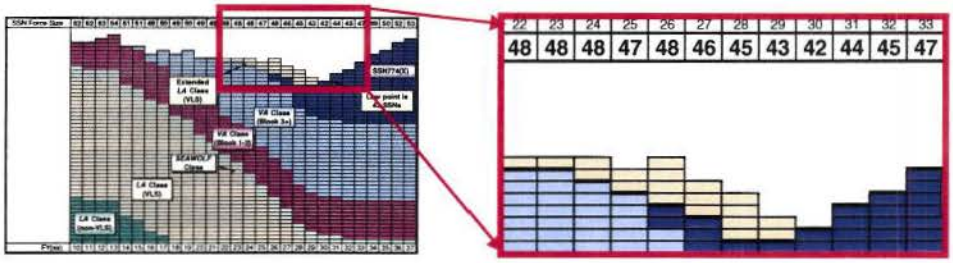
FIGURE 5: An Optimistic Case of Possible Los Angeles class SSN Life Extensions (Includes 66-Month Virginia Construction Span)



Conclusion

Navy 2007 Internal Assessment: The Navy analysis completed in early 2007 considered the ability of extending select SSNs as an aid to filling the SSN force structure trough between 2022 and 2033. The Navy considered maintenance and deployment schedules to determine potential candidates for extension. No extraordinary measures (such as limiting deployments or reduced operating tempo) were used to develop this list of SSNs. These 17 Los Angeles Class extensions would add 19 SSN-years of availability, as shown in Figure 6, at a total cost (10 drydockings, OMN and MPN) of about $560M (FY09$). Since that time the Navy's updated fuel projections indicate three fewer boats will be available for extension.

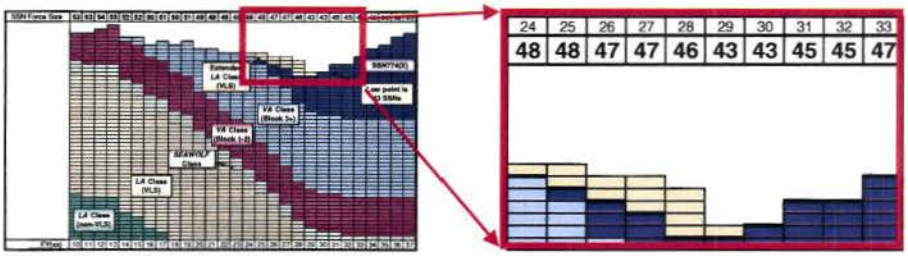
FIGURE 6: Impact on Trough of Navy 2007 Internal Assessment



Updated Navy 2007 Internal Assessment: Since the 2007 analysis, the Navy has reduced the build time of Virginia class SSNs by 6 months, changing the time period of the trough to 2024

through 2033. If the same rules used in the 2007 internal assessment were applied to today's updated fuel projections and trough time period, a total of 14 boats are possible for extension. Of the 14 boat that are candidates for extension, only 11 of these are viable to fill in the trough. These extensions would provide 13 SSN-years of availability, as shown in Figure 7, at a projected price (10 drydockings, OMN and MPN) of about $526M (FY09$). The trough would be reduced from ten years to eight years.

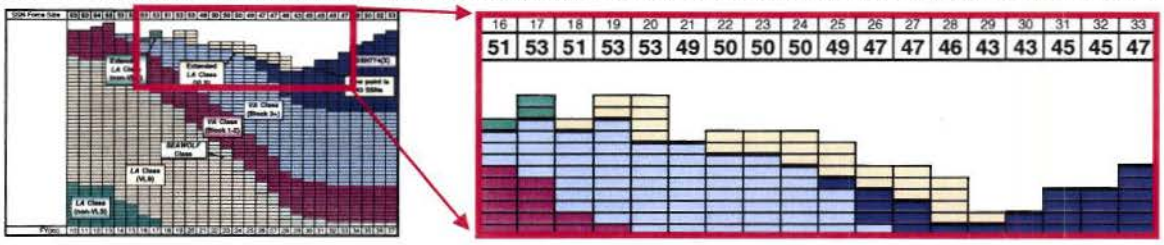
FIGURE 7: Impact on Trough of Updated Navy 2007 Internal Assessment



Updated Navy 2007 Internal Assessment with Expanded Time Period: Using the updated fuel data, if the time period of concern were expanded to include Los Angeles class submarine extensions that impact SSN force structure after 2016 (vice just the trough period), the number of potential extensions goes up from 17 to 28. This creates 30 additional SSN-years of availability between 2017 and 2025, mostly prior to the trough when SSN force structure dips as low as 43.[5] The projected cost of 14 drydockings, OMN and MPN to enable this full set of extensions is about $956M (FY09$).

Barring changes in fuel consumption patterns, technical issues or affordability concerns, it is reasonable to believe that these SSNs could be extended. These extensions would have a positive impact on total SSN force structure after 2016 and on the trough currently projected to occur from 2024 to 2033. Technical studies planned will shed additional light on the factors influencing the feasibility of SSN extensions.

FIGURE 8: Impact on Trough of Updated Navy 2007 Internal Assessment with Expanded Time Period



The extensions considered above result from current Navy fuel conservation practices and careful maintenance. Forced extensions enabled by canceling deployments or reducing operating tempo are not considered operationally feasible. They would result in additional SSN force structure at an unacceptable cost in reduced forward presence and degraded war-fighting surge readiness.

[5] Including Seawolf class submarine extensions would add a total of four SSN-years of availability in the years between 2030 and 2033.

The Navy's 2007 internal assessment on mitigating the SSN force structure trough concluded that selected extensions of Los Angeles Class submarines combined with two-per-year procurement of Virginia Class SSNs and reduced construction time provides the most balanced and operationally effective mitigation for the SSN shortfall. Nothing in this current report changes the conclusions of the original 2007 assessment.

Report to Congress on

Future Jet Carrier Trainer Requirements of the Navy

PREPARED BY:
Director, Air Warfare
Chief of Naval Operations, N88
2000 Navy Pentagon, Room 5C469
Washington, DC 20350-2000
10 February 09

Report on Future Jet Carrier Trainer Requirements of the Navy

Pursuant to the FY09 National Defense Authorization Act, Joint Explanatory Statement (JES) S3001, Section 145:

Not later than 120 days after the date of the enactment of this Act, the Secretary of the Navy shall submit to the congressional defense committees a report on future jet carrier trainer requirements. In addressing such requirements, the report shall include a plan based on the following:

(1) Studies conducted by independent organizations concerning future jet carrier trainer requirements.

(2) The results of a cost-benefit analysis comparing the creation of a new jet carrier trainer program with the modification of the current jet carrier trainer program in order to fulfill future jet carrier trainer requirements.

Studies conducted by independent organizations concerning future jet carrier trainer requirements:

There have been three studies conducted to date regarding undergraduate Naval jet training: (1) T-45 Strategic Planning Study 2003-2035 Final Report, dated 20 FEB 2003, prepared by NAVAIRSYSCOM, AIR-4.10, Warfare Analysis Department, Patuxent River, MD; (2) Analysis Report on the US Navy Chief of Naval Air Training (CNATRA) Jet Training Requirements and the T-45 Aircraft, Dated 14 JUL 2006, prepared by Johns Hopkins University – Applied Physics Laboratory, Laurel, MD; (3) Undergraduate Jet Trainer Program Analysis of Alternatives (AoA) Final Report, dated 1 JUL 2008, prepared by Booz Allen Hamilton, Inc., Lexington Park, MD.

All three studies validated the requirement for a carrier capable Naval Undergraduate Jet Training System (UJTS) beyond the service life of the T-45C platform and attempt to refine future UJTS attributes beyond that basic requirement. Additionally, all three studies concluded that the T-45 UJTS, consisting of: the T-45 Goshawk aircraft; ground based flight simulators; computer-assisted instructional programs; a computerized training integration system; and a contractor logistics support package; adequately meets current and future training needs for USN/USMC strike/fighter pilots and flight officers.

Study 1 concluded the need for an additional 22 T-45 aircraft (239 total aircraft) in order to support training through 2022, at which time a T-X replacement training aircraft would be designed, tested, and available to assume training. Study 2 concluded that the service life of the T-45 inventory of 223 aircraft can support CNATRA's jet training requirements up to 2028, and that a follow-on jet trainer will be required to continue to meet USN/USMC strike/fighter pilot and flight officer training. In addition, Study 2 concluded that an Engineering Change Proposal (ECP) upgrade to the T-45C is the

most cost effective solution to meet future undergraduate jet training requirements. Study 3 concluded that the T-45D (a newly manufactured T-45C using modernized production) was the most cost effective solution that adequately meets naval undergraduate jet training needs.

There is no common conclusion amongst these three reports. In order to tie together the essential elements of all three reports, the USN has undertaken a Service Life Assessment Program (SLAP) that will provide conclusive engineering analysis on the projected service life of the T-45C aircraft. In parallel with this SLAP effort, we have a Service Life Extension Program (SLEP) to extend the designed life of the T-45C airframe from 14,400 hours to 21,600 hours. Specific factors that affect aircraft service life are: (1) annual pilot/flight officer production requirements; (2) curriculum revisions; (3) quantity of aircraft receiving service life extension; (4) changes to the projected strike/fighter flight officer syllabus flight hours (validation pending new curriculum IOC 2011).

Results of a cost-benefit analysis comparing the creation of a new jet carrier trainer program with the modification of the current jet carrier trainer program in order to fulfill future jet carrier trainer requirements:

The process of revalidating and updating the analysis is underway. A more cost effective solution may be achievable through balancing targeted service life extensions with new procurement. Currently, SLAP is providing additional technical information on T-45 service life. Additionally, a strategic undergraduate pilot and flight officer training syllabus and production review is underway which may modify future flight hour and student throughput requirements. The above factors justify continued analysis and requirements refinement to revalidate recapitalization timing and required inventory objective. The way forward is dependant upon completion of the SLAP effort (estimated completion date of first quarter FY10).

Pending completion of SLAP, selection or support for any of the study recommendations and the associated cost benefit analysis of a new jet carrier trainer program vs. modification of the current jet carrier trainer program would be presumptive and inconclusive.

Summary:

Future jet carrier trainer alternatives are still under consideration through a requirements refinement and revalidation process. This fact-based refinement will lead to a singular solution for meeting future jet carrier trainer requirements. The Department of the Navy's subsequent budget submissions will include the costs, schedule and expected performance of the defined future jet carrier trainer solution.

DEPARTMENT OF THE NAVY
CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

ACTION MEMO

IN REPLY REFER TO

February 3, 2009

FOR: SECRETARY OF THE NAVY

FROM: ADM G. Roughead, Chief of Naval Operations

SUBJECT: Report to Congress – Future Jet Carrier Trainer Requirements

- Mr. Secretary, request you sign the letters at TAB A and forward with the report at TAB B to Chairmen of the four Defense Committees.

- Submission of this information is directed by the Fiscal Year 2009 National Defense Authorization Act (FY 09 NDAA), Section 145. The due date for this report is no later than 120 days after enactment of the FY 2009 authorization act, i.e., 10 February 2009.

- The Report to Congress references three studies (from 2003, 2006 and 2008) conducted to evaluate undergraduate Naval jet training; none of which arrive at a common conclusion.

- In order to tie together the essential elements of all three reports, the Navy has undertaken a Service Life Assessment Program (SLAP) in parallel with a Service Life Extension Program (SLEP) for the T-45C.

- Prior to completion of the SLAP, selection or support of any of the study recommendations and the associated cost benefit analysis of a new jet carrier trainer vs. modification of the current jet carrier trainer would be inconclusive.

- The estimated completion of the SLAP is December 2009; the Department of the Navy's subsequent budget submission will include the costs, schedule, and expected performance of the defined future jet carrier trainer solution.

RECOMMENDATION: SECNAV sign letters at TAB A.

COORDINATION: TAB D

ATTACHMENTS:
As stated

Prepared By: CDR Richard W. Brantley, N88C1, (703) 695-2306

10 Feb 09
HASN
RELEASE
2/6/09

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 10, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on
Defense
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In response to Section 145 of the 2009 Duncan Hunter National Defense Authorization Act, the enclosed unclassified report provides information regarding the future jet carrier requirements of the Navy.

Specifically, three studies have been conducted to date regarding undergraduate Naval jet training. In order to tie together the essential elements of all three reports, the Navy has undertaken a Service Life Assessment Program (SLAP) in parallel with a Service Life Extension Program (SLEP) for the T-45C. Prior to completion of this SLAP, selection or support of any of the study recommendations and the associated cost benefit analysis of a new jet carrier trainer program vs. modification of the current jet carrier trainer program would be presumptive and inconclusive.

Future jet carrier trainer alternatives are still under consideration through a requirements refinement and revalidation process. This fact-based refinement will lead to a singular solution for meeting future jet carrier trainer requirements and should be completed by December 2009. The Department of the Navy's subsequent budget submission will include the costs, schedule, and expected performance of the defined future jet carrier trainer solution.

A similar response has been sent to Chairmen Levin, Skelton, and Murtha. As always if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 10, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on
Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In response to Section 145 of the 2009 Duncan Hunter National Defense Authorization Act, the enclosed unclassified report provides information regarding the future jet carrier requirements of the Navy.

Specifically, three studies have been conducted to date regarding undergraduate Naval jet training. In order to tie together the essential elements of all three reports, the Navy has undertaken a Service Life Assessment Program (SLAP) in parallel with a Service Life Extension Program (SLEP) for the T-45C. Prior to completion of this SLAP, selection or support of any of the study recommendations and the associated cost benefit analysis of a new jet carrier trainer program vs. modification of the current jet carrier trainer program would be presumptive and inconclusive.

Future jet carrier trainer alternatives are still under consideration through a requirements refinement and revalidation process. This fact-based refinement will lead to a singular solution for meeting future jet carrier trainer requirements and should be completed by December 2009. The Department of the Navy's subsequent budget submission will include the costs, schedule, and expected performance of the defined future jet carrier trainer solution.

A similar response has been sent to Chairmen Levin, Inouye, and Skelton. As always if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 10, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In response to Section 145 of the 2009 Duncan Hunter National Defense Authorization Act, the enclosed unclassified report provides information regarding the future jet carrier requirements of the Navy.

Specifically, three studies have been conducted to date regarding undergraduate Naval jet training. In order to tie together the essential elements of all three reports, the Navy has undertaken a Service Life Assessment Program (SLAP) in parallel with a Service Life Extension Program (SLEP) for the T-45C. Prior to completion of this SLAP, selection or support of any of the study recommendations and the associated cost benefit analysis of a new jet carrier trainer program vs. modification of the current jet carrier trainer program would be presumptive and inconclusive.

Future jet carrier trainer alternatives are still under consideration through a requirements refinement and revalidation process. This fact-based refinement will lead to a singular solution for meeting future jet carrier trainer requirements and should be completed by December 2009. The Department of the Navy's subsequent budget submission will include the costs, schedule, and expected performance of the defined future jet carrier trainer solution.

A similar response has been sent to Chairmen Inouye, Skelton, and Murtha. As always if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 10, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

In response to Section 145 of the 2009 Duncan Hunter National Defense Authorization Act, the enclosed unclassified report provides information regarding the future jet carrier requirements of the Navy.

Specifically, three studies have been conducted to date regarding undergraduate Naval jet training. In order to tie together the essential elements of all three reports, the Navy has undertaken a Service Life Assessment Program (SLAP) in parallel with a Service Life Extension Program (SLEP) for the T-45C. Prior to completion of this SLAP, selection or support of any of the study recommendations and the associated cost benefit analysis of a new jet carrier trainer program vs. modification of the current jet carrier trainer program would be presumptive and inconclusive.

Future jet carrier trainer alternatives are still under consideration through a requirements refinement and revalidation process. This fact-based refinement will lead to a singular solution for meeting future jet carrier trainer requirements and should be completed by December 2009. The Department of the Navy's subsequent budget submission will include the costs, schedule, and expected performance of the defined future jet carrier trainer solution.

A similar response has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of any further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John McHugh
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB -4 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2008, a total of $15,093,000 in gifts were accepted pursuant to Section 2601 of title 10, United States Code and used to construct the following facilities for the Department of the Navy:

- First Five CDC, Naval Base Coronado, $5,093,000 and
- Seabee Museum, Port Hueneme, CA, $10,000,000

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, Murtha, Johnson, and Edwards.

Sincerely,

Howard E. Snow
Deputy Assistant Secretary
(Installations & Facilities)

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB _4 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2008, a total of $15,093,000 in gifts were accepted pursuant to Section 2601 of title 10, United States Code and used to construct the following facilities for the Department of the Navy:

- First Five CDC, Naval Base Coronado, $5,093,000 and
- Seabee Museum, Port Hueneme, CA, $10,000,000

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, Murtha, Johnson, and Edwards.

Sincerely,

Howard E. Snow
Deputy Assistant Secretary
(Installations & Facilities)

Copy to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB -4 2009

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2008, a total of $15,093,000 in gifts were accepted pursuant to Section 2601 of title 10, United States Code and used to construct the following facilities for the Department of the Navy:

- First Five CDC, Naval Base Coronado, $5,093,000 and
- Seabee Museum, Port Hueneme, CA, $10,000,000

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, Murtha, Edwards, and Levin.

Sincerely,

Howard E. Snow
Deputy Assistant Secretary
(Installations & Facilities)

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB -4 2009

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2008, a total of $15,093,000 in gifts were accepted pursuant to Section 2601 of title 10, United States Code and used to construct the following facilities for the Department of the Navy:

- First Five CDC, Naval Base Coronado, $5,093,000 and
- Seabee Museum, Port Hueneme, CA, $10,000,000

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Inouye, Murtha, Johnson, and Levin.

Sincerely,

Howard E. Snow
Deputy Assistant Secretary
(Installations & Facilities)

Copy to:
The Honorable Zach Wamp
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 04 2009

The Honorable Ike Skelton
Chairman, House Armed Services
Committee
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2008, a total of $15,093,000 in gifts were accepted pursuant to Section 2601 of title 10, United States Code and used to construct the following facilities for the Department of the Navy:

- First Five CDC, Naval Base Coronado, $5,093,000 and
- Seabee Museum, Port Hueneme, CA, $10,000,000

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Inouye, Murtha, Johnson, and Edwards.

Sincerely,

Howard E. Snow
Deputy Assistant Secretary
(Installations & Facilities)

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

FEB -4 200

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
United States House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 124 of Public Law (P.L.) 109-114, as amended by Section 5013 of P.L. 109-148, requires an annual report on the amount of funds that were derived under Sections 2601, chapter 403, chapter 603, or chapter 903 of title 10, United States Code in the previous year and were obligated for the construction, improvement, repair, or maintenance of any military facility or infrastructure.

During Fiscal Year 2008, a total of $15,093,000 in gifts were accepted pursuant to Section 2601 of title 10, United States Code and used to construct the following facilities for the Department of the Navy:

- First Five CDC, Naval Base Coronado, $5,093,000 and
- Seabee Museum, Port Hueneme, CA, $10,000,000

Please let me know if I can be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton, Inouye, Johnson, and Edwards.

Sincerely,

Howard E. Snow
Deputy Assistant Secretary
(Installations & Facilities)

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO
03 March 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member
Subcommittee on Defense
Committee on Appropriations

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO
03 March 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Murtha and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member
Committee on Armed Services

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO
03 March 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member
Subcommittee on Defense
Committee on Appropriations

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO
03 March 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John McHugh
Ranking Member
Committee on Armed Services

Executive Summary

Navy Medical Inspector General Report on Inspections of Military Quarters Housing Medical Hold and Medical Holdover Personnel (Inspections performed January 2009)

Military Quarters Housing Medical Hold and Holdover Personnel

Number of Facilities Inspected: 66

	Assignment		Baseline		Special Medical	
Component	**Met Standard***	**Not Met Standard***	**Met Standard***	**Not Met Standard***	**Met Standard***	**Not Met Standard***
Navy	627	0	617	10	627	0

*** Represents the number of medical hold or holdover personnel whose quarters have or have not met the housing standard.**

Cost to bring inspected facilities to standard ($ Thousands): $938K

Component	Assignment	Baseline	Special Medical
Navy	$0	$938K	$0

Per the Bureau of Medicine and Surgery (BUMED) memo dated 14 November 2008 and the National Defense Authorization Act of January 16, 2008, Bureau of Medicine and Surgery (BUMED) medical activities were tasked, in coordination with Commander Navy Installation Command (CNIC) and Commander Headquarters Marine Corps (CMC), to inspect quarters housing medical hold and holdover personnel, using standards and checklists developed by the Senior Oversight Committee's Line of Action (LOA) 5 Working Group. All inspected quarters housing medical hold or holdover personnel met, or will meet, pending renovations, the applicable quality standards of assignment and were appropriate for the service member's medical condition.

Inspection Reports

Report Organization:

1. Service Definitions/Terms of Reference
2. Assignment of Personnel to Quarters for Medical Hold and Holdover Status
3. Facilities Used to House Personnel
4. Military Quarters Housing Medical Hold and Holdover Personnel

Appendix 1: Quarters Housing Medical Hold and Holdover Checklist

1. Service Definitions/Terms of Reference:

Inpatient - An individual, other than a transient patient, who is admitted (placed under treatment or observation) to a bed in a Medical Treatment Facility that has authorized or designated beds for inpatient medical or dental care. A person is considered an inpatient status if formally admitted as an inpatient with the expectation that he or she will remain at least overnight and occupy a bed even though it later develops that the patient can be discharged or transferred to another hospital or does not actually use a hospital bed overnight. This does not include a patient administratively admitted to the hospital for the purposes of a same day surgery procedure.

Outpatient - An individual receiving healthcare services for an actual or potential disease, injury, or life style-related problem that does not require admission to a medical treatment facility for inpatient care.

Medical Hold - enlisted personnel housed in a Medical Hold Company (MHC) under the cognizance of the MTF whose current condition precludes them from returning to full duty.

Medical Holdover - Retention of reservists on active duty to receive medical treatment for service-connected injuries, illnesses and/or disease until determined Fit for Duty by the Benefit Issuing Authority (BIA), Senior Medical Officer (SMO) and/or Medical Status Review Officer (MSRO), or until final disposition is determined by the PEB.

Assignment – DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that Medical Hold and Holdover personnel shall be assigned/referred to housing that exceeds or meets the applicable quality standards. Additionally this housing should be appropriate to their expected duration of treatment; supports a non-medical attendant, if authorized; supports accompaniment by their dependents; and appropriate for their pay-grade.

Baseline - DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that housing must be in good overall condition with no major problems with any of the building systems. Additionally, it is important for personnel to be able to adequately control the temperature of their housing units and there shall be no mold, exposed lead-based paint, unsealed asbestos, inadequate air circulation, and any other environmentally/safety/health hazard.

Special Medical Requirements - – DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that Medical Hold and Holdover personnel may have certain medical conditions that result in various functional limitations. For these members, it is essential that special accommodations and services be provided as an integral part of their medical treatment plan as determined by the primary care physician, patient, and chain of command.

Medical Evaluation Board (MEB) - A body of physicians attached to one of the medical treatment facilities (MTFs) whose commander or commanding officer (CO) has been expressly designated to hold "convening authority" (CA) for MEBs to identify members whose physical and/or mental qualification to continue on full duty is in doubt or whose physical and/or mental limitations preclude their return to full duty within a reasonable period of time. They are convened to evaluate and report through on the diagnosis; prognosis for return to full duty; plan for further treatment, rehabilitation, or convalescence; estimate of the length of further disability; and medical recommendation for disposition of such members.

Department of the Navy Disability Evaluation System (DES) – A case usually enters the Department of the Navy DES when a Medical Evaluation Board (MEB) is dictated for the purpose of evaluating the diagnosis and treatment of a member who is unable to return to military duty because the member's condition most likely is permanent, and/or any further period of temporary limited duty (TLD) or LIMDU is unlikely to return the member to full duty. A condition is considered permanent when the nature and degree of the condition render the member unable to continue naval service within a reasonable period of time (normally 8-12 months or less). Note: The term "permanent" does not necessarily mean the condition is unfitting.

Physical Evaluation Board (PEB) – The PEB provides three stages of review (a documentary review, a due process hearing upon demand, and appeal by petition) for a Service member whose physical conditions have been referred to it by a medical evaluation board (MEB) of an MTF that believes that the member's physical condition raises questions about his ability to perform the duties of his or her office, grade, rank or rating.

- Referral of a Medical Evaluation Board report to the PEB can come from two sources; i.e. Limited Duty board reports referred for PEB evaluation by service headquarters, and Medical Board reports submitted directly to the PEB by a medical treatment facility (MTF).

Distinguishing "Fit for Duty" from "Fitness for Continued Naval Service"

- "Fit for Duty" refers to a pronouncement by a physician or by an MEB that a patient previously on light or LIMDU has healed from the injury or illness that necessitated the member's serving in a medically restricted duty status.

- "Fitness for Continued Naval Service" is a finding made exclusively by the Department of the Navy PEB in determining an active duty service member's ability to continue serving in the Navy or Marine Corps.

2. Assignment of Personnel to Quarters for Medical Hold and Holdover Status:

The disposition and assignment of personnel post inpatient status is contingent on the member's medical status, recommendation of treating physician, treatment requirements, family status, and service component. The following is the BUMED Medical Hold and Holdover Status as of 30 January 2009.

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing **	Number of Personnel Housed
Number of personnel	2/691	542/691	0/691	45/691	65/691	37/691	691

X= MH and Holdover Rooms/Housing Units
Y= Total number of MH and Holdover
**** = Standards do not apply to private homes**

3. Facilities Used to House Personnel:

Military Medical Treatment Facility (MTF) - A facility established for the purpose of furnishing medical and/or dental care to eligible individuals. This does not include battalion aid stations, post/base in or out processing facilities, or soldier readiness processing (SRP) facilities unless they are an integral part of the MTF.

DoD Owned Military Family Housing - Housing owned by the U.S. Navy for occupancy by eligible members with dependents and funded with Family Housing, Navy and Marine Corps (FH, N&MC) dollars.

DoD Owned Unaccompanied Personnel Housing - Housing owned by the U.S. Navy for occupancy by permanent party single military personnel and funded with O&M, N.

Leased or contracted Housing or Lodging on the community - Leased housing is private sector housing leased by the Navy for occupancy by families, unaccompanied personnel, or transient personnel.

DoD/NAF owned Lodging (including Fisher Houses) - DoD/NAF owned Lodging is transient housing with management by non-appropriated fund personnel to provide housing support for transient personnel whether on temporary duty or travel orders, or personnel and dependents on permanent change of station orders.

Housing Assignment - Personnel are assigned on a first come first served basis upon receipt of an application or official request of housing using waiting list procedures that ensure equitable access to housing for all families, bachelors, and transients. Personnel with medical conditions will be assigned to housing that is appropriate for their unique conditions.

Privatized Family Housing or Lodging – Housing obtained through implementation of military housing privatization authorities (10 USC 2871 et seq). Housing is owned and operated by a private entity and rented to eligible military personnel on a preferential basis. Personnel are referred (vice assigned) to the housing and lease directly from the private entity.

Support for Personnel in Non-Governmental Housing – The Patient Administrative Department at each activity is used as the medium to obtain medical support for a member residing at home by communicating or linking to Case Management or other appropriate offices within the hospital and also for answering general questions.

Administratively, if the member is undergoing an MEB or PEB, the Patient Administrative Department communicates with the member as often as necessary to ensure proper and efficient submission of any MEB or PEB.

4. Military Quarters Housing Medical Hold and Holdover Personnel:

Summary of Past Inspections:

The material condition of housing quarters maintained by CNIC, CMC and BUMED are monitored and reported using a centrally managed continuous inspection process described in NAVFAC MO-322, Inspection of Shore Facilities. In general, Sustainment Restoration and Modernization (SRM) requirements identified during the inspection process are documented in a web accessible database. The Navy and Marine Corps are moving from an installation implemented inspection system to centrally funding inspections by professional engineering teams. Inspections will be completed for all class II type 2 real property assets on a specified schedule based on type and significance of facility using a single service wide set of evaluation criteria that are consistent with all applicable codes and standards.

Facility asset condition is evaluated using the industry standard metric Facility Condition Index (FCI) which is calculated as total unfunded SRM requirement divided by asset Plant Replacement Value (PRV). The calculated FCI is consistent with the Quality factor Q as defined by OSD and is the reporting metric common to all service branches.

Additionally, to specifically support the inspection process for the Wounded Warrior and Medical Hold/Holdover facilities, a detailed check-list was created using the DEPSECDEF Housing Standards and is used by the inspection team to perform the semi-annual Regional Medical Inspector General inspections and the annual Wounded Warrior/Medical Hold/Holdover housing facilities inspection conducted by the Navy and the Marine Corps.

At the activity level, housing and facility management personnel conduct inspections as required (daily, weekly, monthly, quarterly, etc). Navy housing staffs perform regular and recurring inspections to ensure that standards are maintained for a quality living environment in permanent party and transient housing facilities. Inspectors ensure that resident living areas are kept clean and that all amenities such as furnishings, linen and appliances are adequate and in good condition. Housing inspectors report maintenance, repair, and safety items to facility maintenance personnel for correction and schedule work to minimize disruption to residents. Facility Managers participate in facility inspections, fire and safety inspections and review deficiencies identified by maintenance personnel (government or contractor) while performing preventative maintenance

inspections (PMIs).

BUMED, CMC and CNIC have the authority at the local level to correct known requirements or deficiencies up to a certain threshold. BUMED, CMC and CNIC have documented process for submission of special projects over this threshold.

Current Inspection Protocol/Process:

The housing standards for this inspection were developed by a LOA 5 sub working group staffed with representatives from OSD H&CS, Air Force, Army, Navy, and Marine Corps. The inspection checklist contains questions separated into three categories outlined in the housing standards: Assignment, Baseline and Special Medical.

Due to the inspection being based on the medical condition of the military service member, BUMED took the lead on the military quarters housing medical hold and holdover personnel inspections, and were requested to coordinate with BUMED facility managers, when BUMED was the facility owner or to coordinate with CNIC and CMC when they were the facility owners, respectively. All final inspections were submitted through BUMED. Teams typically included medical case managers, housing managers, facility managers, engineers of various disciplines, engineering technicians and tradesmen of various backgrounds. The teams were advised to perform a visual inspection of each housing facility after reviewing requirements generated in VFA, recurring service calls identified in DMLSS or MAXIMO and regularly scheduled PMIs.

Activity responses were varied. Most activities indicated that their medical hold space met the standard, and as a result, no actions or estimates were required. Other activities indicated that their housing met the standard, but recognized that deficiencies existed in the facility and provided estimates accordingly. In all cases when a facility did not meet the standard, renovations were underway to correct the deficiency. The results are reported in the three categories of "Assignment", "Baseline" and "Special Medical" and are included below:

Findings:

National Naval Medical Center (NNMC) Bethesda, MD

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Mercy Hall, Bldg 50	71/0	$0	71/0	$0	71/0	$0

National Naval Medical Center (NNMC) Bethesda, MD (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	71/74	0	0	0	3/74	74

Comments: NNMC Bethesda completed Mercy Hall renovations with associated site enhancements to correct Americans with Disability Act (ADA) and Uniform Federal Accessibility Standards (UFAS) deficiencies in December 2007. ADA/UFAS compliance included providing accessible public and occupant room toilets, drinking fountains, new exterior and interior doors, and corridors. A new elevator serving all floors is operational.

NNMC Bethesda constructed an ADA compliant ramp providing direct access to Mercy Hall from the Naval Exchange area.

Additionally, NNMC Bethesda awarded a FY09 BUMED Special Project to modernize the Heating and Air Conditioning System allowing individual unit temperature control. Construction is scheduled to start in March 2009 with an expected completion date of March 2010.

NH Camp Pendleton, CA/MCB Camp Pendleton

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg H-49	19/0	$38,000	19/0	$0	19/0	$0
2	H-96	6/0	$0	6/0	$0	6/0	$0
3	822 Pohang Dr	1/0	$0	1/0	$0	1/0	$0
4	336 Taegu Dr	1/0	$0	1/0	$0	1/0	$0
5	194 Chunchon	1/0	$0	1/0	$0	1/0	$0
6	335 Elison Ct	1/0	$0	1/0	$0	1/0	$0
7	126 Hamilton	1/0	$0	1/0	$0	1/0	$0
8	330-C Davis Ct	1/0	$0	1/0	$0	1/0	$0
9	742 Cottonwood	1/0	$0	1/0	$0	1/0	$0
10	314 Angeles St	1/0	$0	1/0	$0	1/0	$0
11	423 Hagaru Ct	1/0	$0	1/0	$0	1/0	$0
12	106 Quinn St	1/0	$0	1/0	$0	1/0	$0

NH Camp Pendleton, CA/MCB Camp Pendleton (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	25/35	0	0	10/35	0	35

Comments: H-49 meets standards but requires cosmetic repairs to include: misc. drywall patches, repair of several dressers, removal of old water tank in laundry room, investigate varying temperatures in rooms, repair cosmetic damage to ceiling. Work orders have already been submitted for the cosmetic repairs and have an anticipated completion of March 2009.

Naval Health Clinic (NHC) Hawaii/MCB Hawaii/NAVSTA Pearl Harbor

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	B7046	11/0	$0	11/0	$0	11/0	$0
2	2702E	1/0	$0	1/0	$0	1/0	$0
3	2708C	1/0	$0	1/0	$0	1/0	$0
4	2677B	1/0	$0	1/0	$0	1/0	$0
5	2673A	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	2/15	11/15	0	0	2/15	0	15

Comments: None

Naval Medical Center (NMC) San Diego, CA/Naval Base San Diego

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	NMCSD - Bldg 26	113/0	$0	113/0	$0	113/0	$0
2	NAVSTA-Bldgs 3362, 3203, 3205, Vesta	37/0	$0	37/0	$0	37/0	$0
3	NAB Coronado – Bldg 505	2/0	$0	2/0	$0	2/0	$0
4	3197 Salmon St	0/0	$0	0/0	$0	0/0	$0
5	4504 Gainard Wy	0/0	$0	0/0	$0	0/0	$0
6	10154 Keppler Dr	0/0	$0	0/0	$0	0/0	$0
7	10145 Keppler Dr	0/0	$0	0/0	$0	0/0	$0
8	3182 Larkdale	0/0	$0	0/0	$0	0/0	$0
9	3375 Gridley Pl	0/0	$0	0/0	$0	0/0	$0
10	8281 Hurlbut St	0/0	$0	0/0	$0	0/0	$0
11	3315 Sterett Pl	0/0	$0	0/0	$0	0/0	$0
12	3158 Betan Ct Ln	0/0	$0	0/0	$0	0/0	$0
13	3378 Sterett Pl	0/0	$0	0/0	$0	0/0	$0
14	3168 Edsall Ln	0/0	$0	0/0	$0	0/0	$0
15	3315 Wickes Ln	0/0	$0	0/0	$0	0/0	$0
16	3355 Drayton Ln	0/0	$0	0/0	$0	0/0	$0
17	8270 Hurlbut St	0/0	$0	0/0	$0	0/0	$0
18	8367 Larkdale Av	0/0	$0	0/0	$0	0/0	$0
19	3166 Afton Rd	0/0	$0	0/0	$0	0/0	$0
20	1778 Tattnal Wy	0/0	$0	0/0	$0	0/0	$0
21	2792 Wasp Wy	0/0	$0	0/0	$0	0/0	$0
22	2709 Wasp Wy	0/0	$0	0/0	$0	0/0	$0
23	2870 Mendonca Dr	0/0	$0	0/0	$0	0/0	$0
24	4630 Donaldson Dr	0/0	$0	0/0	$0	0/0	$0
25	4511 Pendleton	0/0	$0	0/0	$0	0/0	$0
26	2620 Durham Ridge Pl	0/0	$0	0/0	$0	0/0	$0
27	7228 Camino Degrazia Unit 277	0/0	$0	0/0	$0	0/0	$0
28	1946 Sea Star Ln	0/0	$0	0/0	$0	0/0	$0
29	6139 Conch Shell Ct	0/0	$0	0/0	$0	0/0	$0
30	1796 Pine Bluff Ln	0/0	$0	0/0	$0	0/0	$0

Naval Medical Center (NMC) San Diego, CA/Naval Base San Diego (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	152/179	0	0	27/179	0	179

Comments: Residents who resided in the 27 Public-Private Venture (PPV) housing units were contacted, however denied access to inspectors, which was allowable per the agreement between Navy and the Southwest Region's PPV partner, Lincoln Property Company. Therefore, these units were not inspected, which is in accordance with the DoD Housing Inspection Standards for Medical Hold and Holdover Personnel. Although the PPV housing was not inspected, the CNRSW Housing Manager stated that Lincoln Property Company is very accommodating in working with service members, even to the extent that they modify housing to meet the member's needs.

NH Camp Lejeune/Marine Corps Base (MCB) Camp Lejeune

	Assignment		Baseline		Special Medical	
Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
H-14 (Wounded Warriors Battalion)	32/0	$0	32/0	$0	32/0	$0
FC 478 (French Creek Reserve Support Unit-RSU)	30/0	$0	30/0	$0	30/0	$0
BOQ 2603	2/0	$0	2/0	$0	2/0	$0
HP 51	1/0	$0	1/0	$0	1/0	$0
BEQ 1042 Brig	11/0	$0	11/0	$0	11/0	$0
BEQ French Creek 478	3/0	$0	1/0	$0	1/0	$0
6307 Mississippi St	1/0	$0	1/0	$0	1/0	$0
6464 Montana St	1/0	$0	1/0	$0	1/0	$0
6424 Montana St	1/0	$0	1/0	$0	1/0	$0
6149B Ohio Ct ***	1/0	$0	1/0	$0	1/0	$0
5588 Florida Ave	1/0	$0	1/0	$0	1/0	$0
4056 Lilja Ct	1/0	$0	1/0	$0	1/0	$0
4196 Stranz Ct	1/0	$0	1/0	$0	1/0	$0
966 E. Peleliu Dr	1/0	$0	1/0	$0	1/0	$0

NH Camp Lejeune/Marine Corps Base (MCB) Camp Lejeune (cont.)

	Assignment		Baseline		Special Medical	
Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
974 E. Peleliu Dr	1/0	$0	1/0	$0	1/0	$0
1004 E. Peleliu Dr	1/0	$0	1/0	$0	1/0	$0
990 Case Ct	1/0	$0	1/0	$0	1/0	$0
4034 Evans Ct	1/0	$0	1/0	$0	1/0	$0
4096 Barker Ct	1/0	$0	1/0	$0	1/0	$0
4073 Matanikau	1/0	$0	1/0	$0	1/0	$0
5086 Wood Ct	1/0	$0	1/0	$0	1/0	$0
5099 LeCaptain Ct	1/0	$0	1/0	$0	1/0	$0
5102 LeCaptain Ct	1/0	$0	1/0	$0	1/0	$0
5198 W Peleliu Dr	1/0	$0	1/0	$0	1/0	$0
5354 Hoffman Ct	1/0	$0	1/0	$0	1/0	$0
2648 Bougainville	1/0	$0	1/0	$0	1/0	$0
2581 Bougainville	1/0	$0	1/0	$0	1/0	$0
5683 Tarawa Blvd	1/0	$0	1/0	$0	1/0	$0
5921 Hagaru Dr	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	79/102	0	0	23/102	0	102

Comments: *** Special medical needs were identified for resident who lives in 6149B Ohio Court (PPV). This member complained of some leg pain when negotiating his stairs, therefore it was determined that a one-level home was more appropriate. Another unit (one-level) was offered to the Marine, however he requested to remain at 6149B Ohio Court until a newly refurbished one-level unit became available in March/April 09. He did not want the inconvenience of moving into a temporary one-level unit, and then moving a second time once the refurbished unit was ready. Medical representation present during the inspection determined that the use of the stairs was not contraindicated in this person's medical condition, therefore agreed with the resident's desire to delay the move until the one-story unit was available. This unit was determined to "meet standard" based on the Marine's request to stay pending his move into the refurbished unit.

NH Camp Lejeune/Marine Corps Base (MCB) Camp Lejeune (cont.)

During the inspection the majority of Wounded Warriors (WWs) were present for the inspection and the inspectors had the opportunity to speak directly with each of them. All WWs were very pleased with the care they are receiving and their lodging accommodations. They also acknowledged that any reported deficiencies were corrected expeditiously

During the inspection of the Reserve Support Unit BEQ 1042 it was noted that there were 6 washers and 6 dryers in the laundry room for a total of 89 residents. The standards for Bachelor Housing were reviewed in the Unified Facilities Criteria (UFC) Navy and Marine Corps Bachelor Housing which states a laundry room should provide (1) washer and two (2) dryers for every sixteen (16) residents as a minimum. At the time of inspection there were 11 Medical Hold/Medical Holdover residents whose rooms were inspected and the number of washer/dryers were adequate. The Marines expressed satisfaction with their living arrangements which were much improved from the previous inspection. BEQ 1042 is slated for a Major Repair Project in FY2010 which will correct the washer/dryer ratio in accordance with maximum occupancy as per UFC Navy and Marine Corps Bachelor Housing Standards.

There were minor findings located at H-14 Barracks, French Creek 478, BEQ 1042, Watkins Village, Midway Park, Tarawa Terrace I and II. The minor findings included; filters need replacing, peeling paint, closet doors off track, cable drops to be removed (Charter Cable to remove), phone jacks to be removed/remounted (Base Telephone to repair), missing curtains, cracked mirrors, ceiling tile replacement, exhaust fan not working, and missing batteries from smoke detector. Base Facilities and Atlantic Marine Corps Communities (AMCC), a base housing Public-Private Venture family housing partner, have work orders in place for all findings for corrective action.

Even though all housing and assignment met the standard, the Marine Corps recognizes the need to provide the best care available to its Ill, Injured and/or Wounded service members and is in the process of designing and constructing a Wounded Warrior Barracks at Camp Lejeune containing 100 rooms compliant with the Americans with Disabilities Act (ADA) guidelines and the new DoD Medical Hold/Holdover Housing Inspection Standards. This MILCON project has been awarded and building occupancy date in scheduled for approximately May 2010. Upon completion of this MILCON project, the occupancy of H14 and FC 478 will be transitioned to the new facility.

NHC Great Lakes, IL/NAVSTA Great Lakes, IL

		Assignment		**Baseline**		**Special Medical**	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Admiral Boorda Hall, Bldg 30	59/0	$ 0	59/0	$ 0	59/0	$ 0
2	Admiral Boorda Hall, Bldg 32	1/0	$ 0	1/0	$ 0	1/0	$ 0

NHC Great Lakes, IL/NAVSTA Great Lakes, IL (cont.)

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
3	Bldg # 7121, ship 17	109/0	$ 0	109/0	$ 0	109/0	$ 0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	169/169	0	0	0	0	169

Comments: Due to their unique training environment, Recruits and Sailors are housed in group berthing units that have communal heads (Transitional holding Unit – Bldg #7121 (Ship 17). Additionally, the HVAC is on a master control for the entire building therefore residents do not have the ability to individually control room temperature. This is a similar situation in Admiral Boorda Hall A facility project improvement to upgrade HVAC controls is approved for FY 09 according to LT Theis, Activity Public Works Officer, NAVSTA.

A contract is in place to clear the snow from the parking area, snow is cleared from the walkway by abled bodied Sailors. Telephone, cable, internet and television services are avilable to building residents (minus internet), but not provided to individual rooms. There is a common area that allows access but the infrastructure is in place for residents to acquire and pay for those services if they desire.

There were numerous rooms with general minor discrepancies in ADM Boorda Hall (bldgs 30 and 32) as follows: light bulb outage, dusty a/c vents, missing sprinkler heads, soiled carpet, and general minor cosmetic maintenance. All of the discrepancies with the exception of a broken desk have been corrected. The desk (new furniture) is still under warranty from the manufacturer. The barracks manager has placed a call into the manufacturer and is awaiting a date for the delivery of the replacement desk. The broken desk was not not considered a safety violation There were no rooms that did not meet the medical hold medical requirements.

In February 2009, all medical hold personnel in Ship 17 Berthing Units will be moved to Ship 5 Recruit Training Command where they will be housed thereafter.

NH Jacksonville, FL/NAS Jacksonville, FL

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	BEQ Bldg 822	8/0	$ 0	8/0	$ 0	8/0	$ 0
2	732A Everglades	1/0	$0	1/0	$0	1/0	$0
3	087A Eversole	1/0	$0	1/0	$0	1/0	$0
4	1700 Mindenou Apt 907	1/0	$0	1/0	$0	1/0	$0

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	8/34	0	0	3/34	23/34	34

Comments: Privatized housing was throughly inspected during the Navy to contractor turnover this year. Residents all report that while facility trouble calls have been infreqently needed, the contractor response has been prompt. All three units were inspected with the residents present and no discrepancies were noted.

NH Pensacola, FL/NAS Pensacola, FL

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Bldg 600	1/0	$ 0	1/0	$ 0	1/0	$ 0
2	Bldg 3251 NAS Pensacola	25/0	$ 0	25/0	$ 0	25/0	$ 0

NH Pensacola, FL/NAS Pensacola, FL (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	26/26	0	0	0	0	26

Comments: No deficiencies noted in bldg 600, rooms recently upgraded. Bldg 3251, room 133 and 141 had mild rust around fire sprinkler- work ticket submitted, pending contractor repair.

NMC Portsmouth, VA/Naval Station Norfolk/Norfolk Naval Shipyard – Scott Annex

		Assignment		Baseline		Special Medical	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	NMC Portsmouth, Bldg 288	1/0	$ 0	1/0	$0	1/0	$ 0
2	NAVSTA Norfolk S30	30/0	$ 0	30/0	$ 0	30/0	$ 0
3	NAVSTA Norfolk R63	4/0	$ 0	4/0	$ 0	4/0	$ 0
4	NAVSTA Norfolk A51	6/0	$ 0	0/6	Replacement of windows/ $450K	6/0	$ 0
5	NAVSTA Norfolk A52	4/0	$ 0	0/4	Replacement of windows/ $450K	4/0	$ 0
6	NAVSTA 1530	1/0	$ 0	1/0	$ 0	1/0	$ 0

NMC Portsmouth, VA/Naval Station Norfolk/Norfolk Naval Shipyard – Scott Annex (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0	1/57	0	45/57	0	11/57	57

Comments: All rooms were inspected and determined to meet standards. Although no special accommodations were required during this inspection, it was not clear that an effective process is in place to ensure to ensure that the intended housing met any special medical need prior to the patient transitioning from inpatient to outpatient status. It was recommended that Case Management be included routinely to determine if there are special needs based on a member's medical condition. This concern was brought back to BUMED and discussed with the Case Management Program Manager.

Navy reservists comprise the medical-hold population at Norfolk Naval Station and Scott Annex with the Reserve Component Command (RCC) responsible for managing and ensuring adequate housing for medical hold personnel. Assigned transient quarters are managed by the Navy Gateway Inns and Suites (NGIS). Contracted Case Managers (CMs) are funded by Naval Medical Center (NMC) Portsmouth and are located within RCC. Although no special accommodations were required during this inspection, it was unclear whether there is a good process for case managers to assess a patients medical needs and recommend specific housing needs. These concerns were shared with NMC Portsmouth and RCC leadership.

A repeat finding and remaining unmet condition requires the replacement of windows in Buildings A51 and A52. Ten medical hold personnel were assigned to these suites at the last inspection and ten were assigned to them during this inspection. Although other aspects of the quarters were exceptional, functional windows are a basic safety requirement and they currently are not operational. NAVFAC Norfolk estimates the cost to replace 426 windows in both buildings at $900K.

Minor findings related to malfunctioning furniture and chipped interior paint, glue residue, paint bubbling, loose railings and cracked receptacle plates were corrected immediately or by 2 Feb 09 by the NGIS staff. As of this report, all minor findings had been corrected.

An additional concern raised by Medical Hold and Holdover Personnel at Naval Station RCC involved being assigned med-hold status at RCC Norfolk when they and their families lived on the west coast (CA, WA etc.) and were mobilized and demobilized in CA. Many expressed frustration at not being able to have their families with them during their recovery because

spouses could not afford to leave their jobs and dependents couldn't be taken out of school for the duration of their medical hold status.

There are several projects currently underway at NAVSTA Norfolk to expand quarters for all Sailors on the installation to meet the requirement for all ship-assigned sailors. Med-Holds are currently assigned to available bachelor quarters throughout the installation and are not designated specific buildings or rooms. NAVSTA Norfolk personnel shared that Sustainment, Restoration and Modernization funding, used to renovate/repair existing installation buildings/quarters, is severely limited and are prioritized based on the installation's operational needs, resulting in several unfunded requirements for older buildings requiring renovation or repair.

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372–7300

IN REPLY REFER TO
03 March 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member
Subcommittee on Defense
Committee on Appropriations

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO
03 March 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Skelton, Murtha and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member
Committee on Armed Services

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO
03 March 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member
Subcommittee on Defense
Committee on Appropriations

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372–7300

IN REPLY REFER TO
03 March 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P. L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 66 facilities housing medical hold and holdover personnel were inspected in January 2009, and identifies $938,000 in deficiencies that have been programmed for correction. All quarters for medical hold or holdover personnel will be inspected again in July 2009, as per the statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

P. J. Goodin
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John McHugh
Ranking Member
Committee on Armed Services

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 03 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." The fourth quarterly report addressed a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fifth quarterly report. The report provides an update on OA progress being made on surface combat systems and the Navy's plans to enhance opportunities for innovation and competition. This report also summarizes the progress being made by the other Navy domains.

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directs that no greater than 50 percent of the dollar amount authorized for the Fiscal Year 2009 surface combat system engineering program (PE 64307N) can be obligated under a sole source contract until 30 days following the submission of a detailed program plan for implementing OA in the Aegis combat system. This quarterly report, in conjunction with last quarter's report, provides the detailed program plan for implementing OA and is intended to meet the stated requirement. Accordingly, the Navy's intention is to proceed with OA program obligations following the specified 30 day period.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 03 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." The fourth quarterly report addressed a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fifth quarterly report. The report provides an update on OA progress being made on surface combat systems and the Navy's plans to enhance opportunities for innovation and competition. This report also summarizes the progress being made by the other Navy domains.

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directs that no greater than 50 percent of the dollar amount authorized for the Fiscal Year 2009 surface combat system engineering program (PE 64307N) can be obligated under a sole source contract until 30 days following the submission of a detailed program plan for implementing OA in the Aegis combat system. This quarterly report, in conjunction with last quarter's report, provides the detailed program plan for implementing OA and is intended to meet the stated requirement. Accordingly, the Navy's intention is to proceed with OA program obligations following the specified 30 day period.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 03 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." The fourth quarterly report addressed a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fifth quarterly report. The report provides an update on OA progress being made on surface combat systems and the Navy's plans to enhance opportunities for innovation and competition. This report also summarizes the progress being made by the other Navy domains.

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directs that no greater than 50 percent of the dollar amount authorized for the Fiscal Year 2009 surface combat system engineering program (PE 64307N) can be obligated under a sole source contract until 30 days following the submission of a detailed program plan for implementing OA in the Aegis combat system. This quarterly report, in conjunction with last quarter's report, provides the detailed program plan for implementing OA and is intended to meet the stated requirement. Accordingly, the Navy's intention is to proceed with OA program obligations following the specified 30 day period.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 03 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)." The fourth quarterly report addressed a detailed program plan for implementing OA for the Aegis combat system.

Enclosed is the fifth quarterly report. The report provides an update on OA progress being made on surface combat systems and the Navy's plans to enhance opportunities for innovation and competition. This report also summarizes the progress being made by the other Navy domains.

The Fiscal Year 2009 Senate Armed Services Committee Report 110-335 directs that no greater than 50 percent of the dollar amount authorized for the Fiscal Year 2009 surface combat system engineering program (PE 64307N) can be obligated under a sole source contract until 30 days following the submission of a detailed program plan for implementing OA in the Aegis combat system. This quarterly report, in conjunction with last quarter's report, provides the detailed program plan for implementing OA and is intended to meet the stated requirement. Accordingly, the Navy's intention is to proceed with OA program obligations following the specified 30 day period.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

FIFTH QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems (PEO IWS)
Washington, DC 20376

February 2009

Executive Summary

The Fifth Report to Congress on Naval Open Architecture (NOA) is submitted as directed by the report of the Senate Armed Services Committee (Report No. 110-77). NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. These practices are intended to significantly increase opportunities for innovation and competition, enable reuse of components, facilitate rapid technology insertion, and reduce maintenance.

This report includes noteworthy NOA accomplishments of the Open Architecture Enterprise Team (OAET) in 2008 with emphasis on October through December 2008. It provides an Enterprise perspective while continuing to emphasize the progress being made to accomplish more frequent and lower cost Surface Domain combat system upgrades. This report also discusses notable NOA accomplishments of other Domains from July through December 2008.

In the Fall of 2008, the Surface Domain released two key documents: a) the Surface Navy Combat Systems Development Strategy and Acquisition Management Plan (AMP), and b) the draft Architecture Description Document (ADD). The AMP provides an executive level plan for implementation of the Surface Domain's Open Architecture (OA) acquisition strategy, while the ADD begins the process of defining future surface combat systems architecture to a level sufficient to guide the transformation of legacy PEO IWS Combat Systems into a single product line. In the spirit of open business processes, the draft ADD document has been made available in PEO IWS' Software, Hardware, Asset Re-use Enterprise (SHARE) repository for review and comment by government and qualified industry entities.

In addition, the Surface Domain continues to compete where and when it can while maintaining its commitment to provide current war fighters with safe and effective combat systems. The Surface Domain is pursuing the addition and/or modification of contract language to give contractors responsible for current combat systems incentives to adhere to open standards and practices and to evolve as quickly as possible towards the objective architecture defined in the draft ADD. Competition for the Platform System Engineering Agent (PSEA) functions for both Aegis and Ship Self Defense System (SSDS) is planned to begin in Fiscal Year 2012. PSEA decisions for other platforms will be made at the appropriate points in the platform lifecycle. The PSEA is responsible for end-to-end combat system performance; systems engineering configuration control, testing, training and logistics; integrating components developed and/or modified by other contractors; and providing technical support to in-service ships.

The Air Domain's Broad Area Maritime Surveillance (BAMS) unmanned aerial vehicle and the Joint Precision and Landing System (JPALS) programs both incorporated NOA contract language and successfully passed through Milestone B in 2008. In 2009 the Air Domain focus will remain on its keystone OA programs – the E-2C/E-2D and the P-3C/P-8A aircraft.

The C4I Domain is refining its Early Adopter process to collaboratively develop systems which will utilize specific Core Services in the immediate Integrated Shipboard Network System (ISNS Inc 1 Mod 5) installations or future Consolidated Afloat Network Enterprise System (CANES). PEO C4I has established a design budget initiative to deliver C4I equipment suites

as late as possible during ship construction in order to avoid having to make costly upgrades shortly after ship commissioning. This is part of a continuous process improvement effort which will be replicated to multiple platforms.

The Submarine Domain continues to exploit OA in Sonar, Tactical Control, Weapon Control, Electronics Warfare and Imaging through Virginia Class new construction and in-service modernization programs. Ongoing competitions for Combat System Subsystems include OA requirements and new automated testing requirements to continue efforts to deliver new capability with reduced cycle time and cost.

The Space Domain is pursuing implementation of OA principles through contracts, reuse, Science and Technology (S&T) processes, and education. NOA contract language was included in the Statement of Work for the Hosted Payload program. Mobile User Objective System (MUOS) waveform artifacts have been deposited in the Joint Tactical Radio System (JTRS) Information Repository and nine developers have received copies. PEO Space Systems (PEO SS) formally incorporated OA tenets into an S&T development process via an S&T Concept of Operations (CONOPS). A Memorandum of Agreement (MOA) was established between PEO SS and the Naval Postgraduate School (NPS) to provide expanded opportunities to instill the foundations of NOA in future Navy Space Cadre members.

Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements more rapidly and efficiently. By shortening the development timeline, using full and open competition to leverage existing combat system components, and focusing on Fleet-identified needs, the Navy will obtain more capable and effective combat systems.

Table of Contents

Executive Summary i
I. Introduction 1
II. NOA Accomplishments: October 1 through December 31, 2008 2
III. OA Program Plan for the Surface Domain and Aegis Combat System 11
IV. Domain Plans for 2009 17
V. Summary 18

I. Introduction

A. Reporting Requirement

As directed in the report of the Senate Armed Services Committee (SASC) on the National Defense Authorization Act for Fiscal Year 2008 (Report No. 110-77), the Navy submits this Fifth Quarterly Report to Congress on Naval Open Architecture (NOA). The scope of this quarterly report includes noteworthy NOA accomplishments of the Open Architecture Enterprise Team (OAET) and the Surface Domain in 2008 with emphasis on October through December 2008.[1] As the Assistant Secretary of Navy (Research, Development and Acquisition) (ASN(RDA)) stated in the letter forwarding the Third Report to Congress (dated August 7, 2008), the Navy will focus on surface combat systems in these reports. The Fifth Report provides an update on the progress being made by the Navy to make incremental improvements to surface combat systems more frequently, with increased effectiveness and at lower cost. Because the Fourth Report and the Surface Navy Combat Systems Development Strategy Acquisition Management Plan (AMP) addressed the previous SASC questions, the Fifth Report provides an update to the Surface Domain progress documented in earlier reports. The Fifth Report also provides a summary of the progress being made by the other Domains.

B. Summary of Previous Reports

The First Report to Congress described the history of NOA[2]; the important role that the OAET plays in providing leadership for NOA; the Department of the Navy's (DON's) long-term focus for implementing OA; and the significant challenges that the Department faces in implementing OA. The First Report also contained information regarding the Navy's two main asset repositories: PEO C4I's Net-Centric Enterprise Solutions for Interoperability (NESI) and PEO IWS's Software, Hardware Asset Re-use Enterprise (SHARE).

Subsequent reports documented the accomplishments of the Naval Enterprise and Domains during the periods January 1 to June 30, 2008. These accomplishments were mapped to the three NOA strategic goals established in the Naval OA Strategy published in December 2006. The Second, Third and Fourth Reports provided updates on several of the questions contained in SASC Reports 110-77 and 110-335. The Fourth Report focused on additional information related to the Surface Domain's NOA efforts.

---

1 The Surface Domain consists of Program Executive Offices (PEOs) representing Carriers, Expeditionary Warfare (Littoral and Mine Warfare or LMW), Integrated Warfare Systems (IWS), and Ships. The Air Domain consists of PEO Tactical Aircraft (T) representing PEOs for the Unmanned Aviation and Strike Weapons; Air Anti-Submarine Warfare (ASW), Assault and Special Mission Programs, and Program Management (NAVAIR 1.0). The SUBS, C4I, and Space Domains are represented by PEO SUBS, C4I and Space, respectively.

2 NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. The Navy and Marine Corps have adopted OA as one way to reduce the rising cost of Naval warfare systems (also known as National Security Systems or NSSs) and platforms and to increase the capabilities of Naval systems.

II. NOA Accomplishments: October 1 through December 31, 2008

This report is framed in accordance with the overarching Naval OA Strategy established in December 2006 as updated in November 2008. The strategy is comprised of three overarching goals, addressing the business, technical, and cultural aspects of OA transformation. These goals are supported by efforts performed either across the Naval Enterprise by the OAET or within individual Domains (by PEOs, Communities of Interest (CoIs), Programs, or System Commands (SYSCOMs)).

A. Goal 1 – Change Naval Processes and Business Practices

Goal 1 – Change Naval processes and business practices to use open systems architectures in order to rapidly field affordable, interoperable systems. This goal includes addressing governance challenges; creating policy and guidance materials; developing new business models (such as the Acoustic-Rapid Commercial-off-the-Shelf Insertion (A-RCI) program; incorporating OA principles and practices in programs and acquisition materials including contracts; and encouraging competition and improving interoperability by making information and design artifacts available for reuse by programs.

- PEO IWS, in collaboration with the OAET, is updating the *OA Contract Guidebook* (last updated on October 25, 2007). The OAET is soliciting "lessons learned" from using the *Guidebook* that can be incorporated into the next version, projected for release later in third quarter, Fiscal Year 2009. In support of this, PEO C4I is developing contract language that can be used in acquiring services associated with Service-Oriented Architectures (SOA). SOA is an approach for building systems that allows organizations to leverage existing assets and supports the evolution of these systems to meet changing requirements. Additionally, PEO C4I, in collaboration with the SPAWAR Contracts Department, has developed a logical decision tree that will assist program managers and contracting officers in determining appropriate contract data rights and OA language for incorporation into solicitations.

- As part of a continuing series of multi-Service meetings between the United States Navy, the United States Air Force (USAF), and the United States Army (USA) on Airborne Electronic Warfare (EW) Self-Protection Systems, PMA 272 hosted a working session on November 8, 2008. The goal of this joint working session was to identify ways to better coordinate EW self-protection programs among the Military Services and incorporate OA into their systems and business practices. Rather than creating a new working group, members from each of the Services participated in a working group that the Air Force has already set up for EW OA as part of their EW Lifecycle Management Group.

- PEO Littoral and Mine Warfare (LMW) prepared a draft performance specification for Unmanned Systems Common Control (USCC) for the Littoral Combat Ship (LCS). This draft specification is the next step in achieving an OA-based design which can be implemented through spiral upgrades of the current LCS vehicle control baseline. It will be provided to industry for review and comment at the February 2009 Association for Unmanned Vehicle Systems International conference. Additionally, a workshop was held

December 16-17, 2008 to coordinate alignment of existing S&T efforts with PEO LMW's OA-based USCC construct. Other PEO LMW Program Office accomplishments during this period include:

- In November 2008, PMS 420 completed an OA Assessment on the Mission Package Computing Environment for the LCS.

- PMS 485 joined the Anti-Submarine Warfare Community of Interest (ASW COI) and, in coordination with PEO IWS 5, agreed to deposit artifacts with the ASW COI repository and to provide SHARE with the ability to direct a user to the repository. As a member of the ASW COI data management working group, PMS 485 has begun to assess OA implications for future data exchange and format requirements.

- The Mine Warfare (MIW) and Environmental Decision Aids Library (MEDAL) tactical decision aid has been migrated to a SOA in support of its OA vision. By incorporating applicable net-centric technologies, this initiative will facilitate a revolution in knowledge management and automation in support of MIW Fleet forces. The inclusion of an open business approach will increase competition and decrease the costs of technology integration. Additionally, a net-centric sensor analysis software suite is being prototyped. This open approach will provide the modularity to allow small businesses to competitively develop and transition new technologies into a common MIW sensor analysis software application. Finally, the Mine Countermeasure (MCM) Modernization for the MCM-1 class ships will deliver its first fully modernized combat system on USS SENTRY (MCM 3) in April of 2009 with an open combat system.

- As part of PEO SS support to the USAF Operationally Responsive Space Office, the Hosted Payload program's Statement of Work (SOW) included OA language to facilitate development and delivery of a Payload Planner's Guide. Families of satellites are based on a general model known as a satellite bus that can be customised to meet specific mission requirements, for example by adding specialized sensors or transponders. These mission payloads have interfaces with the satellite bus to receive power, communications links and other services. The Payload Planner Guide will be used to develop satellite bus interfaces for future hosted payloads. The guide will be delivered with at least Government Purpose Rights (GPR) and include design information about the Contractor's satellite bus. It will enable third-party developers to design payloads for additional satellite busses, increasing competition and flexibility for satellite component designers.

- PEO SS formally incorporated OA tenets into an S&T development process. An S&T CONOPS was produced to delineate a clear process for vetting, prioritization, selection and execution of all S&T efforts. The CONOPS provides visibility for S&T opportunities and contains guidance for submission to S&T venues such as Small Business Innovative Research and Future Naval Capabilities.

- PEO SUBS established an architecture working group to address the evolution of the PEO SUBS architecture. The objectives of the working group are to have an architecture which easily accommodates new capabilities (both on and off hull), addresses architecture mandates, allows for architecture changes which provide a positive return on investment,

and to facilitate alignment with the other Domains. The output of this working group will be an architecture roadmap which will identify the evolutionary path to accomplish these objectives.

- PEO Submarines (PEO SUBS) is setting a precedent by adapting a common business strategy by directing one contracting approach across three program offices (PMS 401, PMS 425 and PMS 435). TEAMSUB used the *OA Contract Guidebook* to document its requirements for GPR more effectively.

- PEO SUBS is increasing focus on meeting the Fleet's Training, Tactics, and Procedure requirements by providing bi-annual capability improvements while delivering "service packs" every other year. This allows the Fleet more time to "train the trainers" on the new capabilities. The first submarine to be delivered under the new service pack model will be the USS BOISE (SSN 764) in August 2009. As a follow-up, TEAMSUB organized a Modernization and Training conference with Development Squadron TWELVE (DEVRON 12), Submarine Type Commander (TYCOM) (N7), Office of Chief of Naval Operations Resource Sponsor (N87), and Submarine Subsystem Program Managers including PEO C4I, PEO IWS-2, PEO IWS-6, PMA 280, Special Projects, and members of the Submarine Learning Center (SLC). The purpose of the conference was to move training efforts towards commonality and designate the SLC as the lead agent for modernization training and DEVRON 12 as the lead agent for Non-Propulsion Electronic Systems doctrine.

- Marine Corps Systems Command (MCSC) has restructured the supervision of OA activities to a division under the Deputy Commander for Systems Engineering, Interoperability, Architectures and Technology. OA management has been assumed by the Director Marine Air Ground Task Force (MAGTF) & Joint Integration and Certification (M&JIC) Division. This shift in governance provides improved alignment with Systems Engineering Technical Review (SETR) processes and Technical Authority initiatives within the command.

- MCSC is taking action to ensure continued application of the *OA Contract Guidebook*. United States Marine Corps (USMC) program teams use a packaged combination of computer applications to prepare and monitor SOW generation and Contract Data Requirements Lists (CDRLs). In November 2008, MCSC initiated a comprehensive review of the SOW, CDRL, and Tracking Tool. A portion of this effort is directed towards incorporating the most current recommended OA language into USMC contracts.

- The ASW COI is developing an ASW Mission Area governance process to implement OA principles including supporting common software development, reuse, and maintenance across the PEOs that are responsible for ASW capability acquisition. This process will facilitate coordination of requirements and funding across multiple OPNAV funding sponsors. This work supports the OAET goal of achieving Enterprise-level software reuse. ASW RDA CHSENG is designating Mission Area Architects to support development of comprehensive, mission focused, system of systems engineering solutions. In 2008, the ASW COI outlined an ASW Mission Area governance policy to address the RDA CHSENG objectives. The policy will be completed in 2009 and submitted for approval to the ASW COI Flag leadership. The scope of the governance policy will include ASW Mission

Capability Architectures, ASW Data Strategy and OA software as well as defining links to related COIs and Capability Portfolio Managers. The OA software governance policy will address identification of common mission area requirements, selection of COI functional software component managers, cross domain reuse, platform integration and software configuration management and maintenance.

B. Goal 2 – Provide Naval OA Systems Engineering Leadership

Goal 2 – Provide Naval OA systems engineering leadership to field common, interoperable capabilities more rapidly at reduced costs. Included in this goal are collaborative efforts in systems engineering; process standardization; leveraging OA to provide quick wins and proofs-of-concepts that provide new capabilities to the Fleet; and providing performance enhancements to fielded systems and development projects.

- In June 2008, ASN(RDA) directed that a SETR process be applied within the DON, designating ASN(RDA) Chief Systems Engineer (CHSENG) as the lead. In support of this, the OAET has begun the task to integrate OA elements within the common SETR process.
    - In August 2008, the OAET worked with ASN(RDA) CHSENG to integrate key OA elements into the draft SETR handbook for all Naval System Commands executing engineering programs for acquisition and modernization of naval systems, System-of-Systems, and Family-of-Systems. The draft document, currently submitted for signature, includes the requirement for software-intensive systems to comply with the NOA principles. In addition, the draft calls for programs to use the OAET's OA Assessment Tool to assess the degree of business and technical openness at each SETR milestone.
    - In November 2008, the OAET established an OA SETR team to prepare recommendations for additional OA input for the next version of the SETR Handbook scheduled to be released in October 2009. The Air Domain SETR was the starting point from which the newly formed OA SETR team will provide inputs to an October update of the Naval SETR Handbook. This document will address overall SETR processes and have separate enclosures for Air, Ships, C4I, Land and Integrated Warfare Systems. PEO IWS provided a draft of the Integrated Warfare System enclosure to the OAET for their review. The OAET will work with ASN(RDA) CHSENG and the Naval System Commands to define the OA objectives to be addressed in the SETR process and show how those objectives flow down into specific review elements. The integration of OA inputs into the SETR will ensure that these requirements are continuously addressed throughout the program lifecycle, and will support the ongoing integration of OA "checkpoints" into program acquisition documents.
- As first documented in the Third Report to Congress, PEO C4I and PEO IWS have coordinated development of the Navy Technical Reference Model (NTRM), which combines the PEO C4I Reference Model and the PEO IWS Common Objective Architecture. The NTRM is used to map programs and products to a common taxonomy for purposes of identifying gaps and overlaps and guiding future acquisition decisions. ASN(RDA) CHSENG, in collaboration with DON Chief Information Officer (CIO), is

reviewing recommendations to expand the NTRM for potential adoption and use by all Navy and Marine Corps PEOs and SYSCOMs. Ultimately, the NTRM will support investment decisions by identifying candidate components for re-use and could help curb duplicative investments.

- Another cross-domain collaborative activity involves the development of the Naval Architecture Elements Reference Guide (NAERG) which is composed of Architecture Elements representing the critical taxonomies, requiring concurrence and standardization for an integrated architecture as described by the DoD Architecture Framework. The data contained in each element of the Architecture list is being used for overall architecture framework development, programmatic research, development, and acquisition activities, along with related integration, interoperability and capability assessments.

    - The NAVAIR Systems Engineering Department and CIO have taken a proactive approach to implement the NAERG in Aviation Domain acquisition programs by establishing an Architecture Center of Excellence (ACOE). The ACOE will use an Architecture Subject Matter Expert to validate the program data used to build the aviation architecture views. A repository will be established for reuse of architecture views across the Aviation Domain. Eventually, as the Naval Enterprise populates the Naval Enterprise Architecture, individual Information Support Plans will be used by Program Office system engineers to drive design decisions. This can lead to better application of OA principles within programs, allowing cross-program or cross-Mission Area collaboration and the development of common data strategies.

- PEOs C4I and IWS collaboratively developed a federated search capability to support software reuse repositories. The capability was fielded in October 2008. As currently implemented, users can employ a single federated search web service to access both the PEO C4I NESI Collaboration Site and the PEO IWS SHARE repository. This allows users to have transparency into the engineering activities and software-related assets hosted in these two reuse repositories. The next step is to coordinate with the other domains participating in the OAET to extend transparency into their domain repositories. For example, MCSC has expressed an interest in exposing their Online Project Information Center Integrated Development Environment (also known as TOPIC) to this search capacity.

- The following SHARE repository and Surface Domain asset / artifact[3] re-use activity occurred during the period from September 30 through December 31, 2008:

    - The "Surface Navy Combat Systems Product Line Software Architecture Description Document" (ADD) draft V.25 was deposited into SHARE – there have been 39 total requests (19 from Industry and 18 from Government) for the ADD.

---

[3] **Artifact**: Products of a system/software development lifecycle, including requirements, design documents, test cases, code, source files, executables, test reports, prototypes, user manuals, use case models, design models, and contract language. **Asset**: Any cohesive collection of artifacts that provide a solution to a user's need.

- An additional 77 assets (55,170 artifacts) have been made available in SHARE this quarter from the Surface Domain:
  - Processed nine new registration applications (there are now a total of 279 government / industry registrants).
  - Submitted the following four assets (1,407 artifacts) developed by General Dynamics - Advanced Information Systems (GD-AIS):
    - XMI Translations Tool for integrated architecture behavior model (IABM) conversion from Kennedy Carter to Telelogic Rhapsody (XT2 for IABM TB41);
    - The partial Command and Decision (C&D) 7.1.1.1 Baseline ported to Linux (Adaption Layer Models);
    - The Aegis 7P1 C&D Requirements Model Generated Software Requirements Specifications (SRSs) for Modeled Components (TI-005 C&D Rhapsody Generated SRS); and
    - The Interface Design Description (IDD) for the Display Interface Function with Telelogic Rhapsody Models (TI-005 IDD Delivery).
- Made additional files related to the DDG 1000 Total Ship Computing Environment Infrastructure 4.2.2 assets available following completion of the audits, legal review, and issue resolution (total of 2,048 artifacts).
- Received a new document asset for MEDAL B11 and MIW Report Artifacts from PEO LMW. Audits and legal reviews have been completed and results are being sent back to PEO LMW for review and action.
- Legal review of the audit findings for two submissions (Naval Research Laboratory's Multifunction Electronic Warfare and the BFFT 3.3.1 & IBDV Source) indicated that there were inappropriate data rights markings, open source software licensing concerns, and license clarifications required before these items can be added to SHARE. Naval Surface Warfare Center Dahlgren Division is working with the submitting organizations to resolve these issues.
- The Generic Data Extraction, Analysis and Reduction (GeDear) 0.2.2.1 and the Human System Interface (HSI) Human Performance Analysis Tool Suite (HPAT) 3.0 are government-developed tools that contained markings that made them inappropriate for submission to SHARE. Requests to place these items into SHARE as currently formatted have been retired. Newer versions of each tool are expected to be resubmitted into SHARE within the month. GeDear is a platform-independent data extraction and analysis tool that allows the developer to more easily add extraction points in order to debug or verify their software. HSI HPAT is a tool suite that supports assessment of human and/or system performance in a variety of domains.

- Received three new requests for assets; these requests are still being processed.

- PEO C4I significantly increased disclosure of design artifacts in the last quarter by submitting 23 assets consisting of 451 artifacts to the NESI Collaboration Web Site. Additionally, 129 new users registered for NESI access during this quarter. The NESI Collaboration Web Site now contains over 280 assets, 6,868 artifacts, and has 1,424 registered users.

- The C4I Domain has successfully reused the JPEO JTRS Scan Tool suite. The PEO C4I NESI compliance server reused the artifact-scanning capability and the open source FOSSology scan tool to assess the Early Adopter Core Services open source software packages. These packages include, but are not limited to, JBoss ESB v4.2.1 and JBoss jBPM v3.2.2. The results of these scanning assessments clearly identified the open source licenses and clauses utilized in the packages as well as any language embedded within the software artifacts that would contradict the Navy's intellectual property rights.

- PEO SS and the MUOS Program Office made design artifacts for the MUOS Common Air Interface (CAI) waveform, version 1.1, available to third-party vendors who: (1) meet United States citizenship requirements; (2) demonstrate an affiliation with a company that has a valid DD-254 in place, and (3) execute the MUOS Non-Disclosure Agreement (which includes Integrated Dual-use Commercial Company licensing restrictions). To date, nine development contractors have obtained copies of CAI software and artifacts for potential integration into their radio terminals. This action widens the opportunity available to industry to provide MUOS-capable radio terminals to the user community.

  - PEO SS installed, as the Assistant PEO for Engineering, a systems engineer who is Defense Acquisition Workforce Improvement Act-level 3 certified and who is formally trained in OA. This position also establishes a linkage to a strong systems engineering partner within SPAWAR, where formal SETR guidance incorporating OA principles is being produced and implemented for all programs across the acquisition community.

- The E-2C program office is working closely with industry to address the need for a common computing architecture across all E-2C Hawkeye 2000 and Group II(M) aircraft. The reuse of mission computing equipment from the E-2D will reduce development and support costs to both platforms and will integrate an open software interface to the mission computer.

- The Naval Aviation Enterprise Future Capabilities Cross-Functional Team has included OA as one of their top initiatives to support and track in Fiscal Year 2009. OA is being implemented within the Air Domain as an overarching acquisition strategy to improve lifecycle affordability and to manage change. In accordance with the recent revision of DoD 5000.2, all DoD programs are required to implement modular, open system approach (MOSA) principles. One of MOSA's key principles is titled "Designate Key Interfaces." To ensure that its contractors are doing this in a uniform manner, the Air Domain has adopted the Key Open Sub-Systems (KOSS) process. KOSS is a methodology that the program Integrated Product Team (IPT) can use to identify the key interfaces' – those modules and/or interfaces that most often change, and therefore will have the greatest

impact on program cost over its lifecycle. After the KOSS are identified, the key interfaces can be designated, tracked, and actively managed for conformance testing (another MOSA principle). It would be ineffective or costly for the Government to manage every interface at every level of a system's architecture. It is those key interfaces that most impact cost that are candidates for joint management/ownership by industry and the Government. The logical place to require KOSS is in statement of work contract language; its implementation can be documented in the Open Systems Management Plan (OSMP) deliverable.

- Because industry is an integral team member in NAVAIR IPTs, the KOSS process was developed and demonstrated in partnership with industry. Additionally, several "pilot" programs were undertaken to demonstrate the value of KOSS. For example, the VH-71 Presidential Helicopter Development Program used KOSS in their OA assessment of Preferred System Solution and alternatives to identify opportunities to potentially reduce Increment 2 fly-away and lifecycle costs and weight. Long-term upgradeability of avionics functionality was a key factor in the assessment. The second phase of the assessment used the KOSS process with the prime contractor, Lockheed Martin, to assess the Communication and Subsystem Processing Embedded Resource Communication Controller (CASPER LITE) system. KOSS was also used to assess Rockwell Collins' Control Display Unit, CDU-7000.

  - The findings influenced government behavior by incorporating MOSA and NOA principles as a sub-element within a recommended Trade Study to include the following OS Management Plan items:
    (1) identify an architecture roadmap (evolving over time);
    (2) using KOSS, identify Key Open Weapons Replaceable Assemblies (WRAs); to be tracked during the Systems Development and Design phase of the contract;
    (3) for key WRAs, identify a strategy to enhance competition at the software application level; and
    (4) identify a strategy to maintain openness throughout the lifecycle.

  - On October 7, 2008, OPNAV-N8F, N88 and PEO(T) hosted a KOSS Industry Feedback meeting where Northrop Grumman Corporation and Raytheon Airborne Systems representatives briefed their experience in using KOSS on some of their Mission Computer systems. Overall feedback was positive and both developers recommended that the Air Domain continue to use the KOSS process. Since DoD has mandated MOSA across the Department, the USAF and other aviation coalition partners are also interested in using the KOSS methodology.

- TEAM SUB has engaged an independent software company and a research institute to assess future submarine Combat System middleware technologies/standards for information architectures. Currently, Common Object Request Broker Architecture (CORBA) is the middleware standard utilized by the submarine Combat System information architecture. CORBA is used to define clear boundaries between federated subsystems in an open and standard way. By sharing information via CORBA, the integrated submarine system can meet its required missions. The resultant federated system of systems is called the Submarine Warfare Federated Tactical System. Currently, PEO SUBS is investigating the need to transition to another middleware standard. PEO SUBS needs to ensure that the

implementations of the standards are available and supportable in the future. Standards need to be supported in the marketplace, and should be aligned with other Navy Domains (i.e., Surface, Air, C4I) and DoD organizations. Implementations of the OA Standards used to integrate the Submarine Warfare Federated Tactical System need to meet submarine constraints and requirements.

- The ASW COI, as part of its ASW Mission Area governance process, is aligning its OA efforts with Mission Capabilities Architectures and Data Strategies in coordination with the RDA Chief Systems Engineer.

- The Director M&JIC ordered a formal OA assessment of products in support of the MAGTF Command and Control Systems and Applications Service-Oriented Environment. Results of this analysis will be provided in second quarter Fiscal Year 2009, and briefed to Director M&JIC and Director MAGTF C2, Weapons, Sensors Development and Integration. This work is a continuation of previous OA assessments completed in support of the Marine Corps' evaluation of products aligned with the Combat Operations Center program.

C. Goal 3 – Change Navy and Marine Corps Cultures to Institutionalize OA Principles

Goal 3 – Change Navy and Marine Corps cultures to institutionalize OA principles. The primary mechanisms for achieving cultural change are formal training, communications and outreach.

- During this reporting period, 58 individuals completed the Defense Acquisition University OA Continuous Learning Module (CLM), raising the total since its inception to 731.

- The Naval Postgraduate School completed a research project that defined a Component Specification Framework and ontologies for application in reuse and other online repositories across the enterprise. The report identifies recommendations for improvements to the descriptions of assets and artifacts stored in repositories such as SHARE and NESI that would enable more effective search, discovery and use. This framework would set the foundation for achieving long-term objectives for resource discovery in the future Global Information Grid. The results of this work are being reviewed for implementation in both the PEO IWS SHARE repository and the PEO C4I NESI Collaboration Site. Other efforts underway at NPS include two groundbreaking research projects. The first will provide a basis for reducing testing requirements while assuring requisite reliability in composable systems; the second is a context-sensitive search engine that will allow much more powerful means of identifying common requirements to aid in search for reusable assets.

- In addition to the previously fielded OA CLM that provides an introduction to OA principles, a training module on principles of software reuse was developed. This module will enter beta testing in early January 2009 with fielding for general use expected to occur by February 2009. As has been the case with the OA CLM, the OAET expects that the Software Reuse CLM will be used by individuals from industry as well as all the Military Services.

- PEO C4I Action Officer presented an OA brief during the 11th Annual Systems Engineering Conference sponsored by the National Defense Industry Association and held in San Diego on October 23, 2008. The discussion highlighted the critical need to define and negotiate Intellectual Property Rights on system components and interfaces particularly when a system of systems approach is being undertaken within or across programs.

- The Mine Warfare Community of Interest (MIW COI) is implementing a FORCEnet roadmap to align MIW applications within a future OA. Support for this future architecture involves data standardization, a services-oriented approach, and technology insertion initiatives to field capability within applicable Navy networks and to expeditionary "edge" users. The MIW Data Model Working Group within the MIW COI has published a semantics-focused MIW taxonomy and plans to iteratively publish a logical data model in Fiscal Year 2009. Incorporation of data standards for sensor data, to include the emerging number of new mine-hunting sonars, is expected to allow expanded reuse of sonar data and highly leverage related efforts and technology to support improved MIW capability.

- PEO SS established a formal relationship with NPS that will provide expanded opportunities to instill the foundations of OA principles in the education of future Navy Space Cadre members. NPS will support PEO SS in its efforts to incorporate these principles in the design and acquisition of space systems. A MOA was signed in July 2008 that created a Space Systems Engineering and Acquisition Chair. The MOA objective is to promote and guide a focused instructional and research program in space systems engineering and acquisition which will support the design, development, integration, test, launch and on-orbit sustainment of naval space systems.

- The Marine Corps M&JIC Division provided an OA status brief to the MAGTF Systems Integration Board in December 2008. Items addressed included OA resources available for Program Officers, use of the Defense Acquisition University education module, and current OA Assessment Tool downloads. Board members were also provided an initial timeline for the incorporation of OA components to Systems Engineering Technical Reviews within Fiscal Year 2009.

III. OA Program Plan for the Surface Domain and Aegis Combat System

In this Fifth Report to Congress on OA, the Surface Domain summarizes the progress it made in 2008, provides its plans for 2009, and addresses some of the major challenges it faces in accomplishing this plan.

In 2008, the Surface Domain released initial versions of two key documents: a) the Surface Navy Combat Systems Development Strategy and AMP, and b) the draft ADD. The AMP provides an executive-level plan of the Surface Domain's OA strategy; the ADD begins the process of providing a definition of future surface combat systems architecture to a level sufficient to guide the transformation of PEO IWS Combat Systems into a single product line. In the spirit of open acquisition processes, both the AMP and the ADD have been made

available in PEO IWS' SHARE repository for review and comment by government entities and qualified industry partners.

In addition, the Surface Domain continues to compete where and when it can, while maintaining its commitment to providing current war fighters with safe and effective combat systems. In Fiscal Year 2008, the Navy successfully held a full and open competition for Common Display System. The Navy also is completing a full and open competition for the Common Processing System (CPS) for weapons systems. Competition for CPS is expected to be completed in the Second Quarter of Fiscal Year 2009.

The Surface Domain is pursuing the addition and/or modification of contract language with incumbent vendors to incentivize them to adhere to open standards and practices and to evolve as quickly as possible towards the objective architecture design when defined in the ADD.

The Navy is fully committed to transitioning surface combat systems to an OA that adheres to a government-controlled objective architecture. The complexity of this endeavor cannot be understated. However, by rigorously adhering to an open acquisition model and total systems engineering approach, the Navy will increase commonality, innovation, competition and capability fielding across the Surface Fleet.

A. Surface Domain Open Architecture 2008 Year-in-Review

As stated in previous Reports to Congress, the first step of transitioning a legacy combat system to OA is decoupling the hardware from the software. USS BUNKER HILL (CG 52) is in the process of receiving Aegis Advanced Capability Build 08 / Technology Insertion 08 (ACB 08 / TI 08). This extensive modernization to the Baseline 2 Cruiser combat systems not only separates hardware and software but introduces a Commercial Off-The-Shelf (COTS)-based hardware infrastructure. USS BUNKER HILL has completed its industrial availability and installation of ACB 08 / TI 08 and testing of her combat system is ongoing. BUNKER HILL will begin its Combat System Ship Qualification Trial in April 2009.

While Aegis ACB 08 and TI 08 are being implemented in Baseline 2 Cruisers, CG 52 – 59, the Navy also completed Preliminary Design Review on Aegis ACB 12 / TI 12 in early December 2008. Aegis ACB 12 builds on Aegis ACB 08 / TI 08 by furthering componentization, documenting existing components, and adding Ballistic Missile Defense, Naval Integrated Fire Control – Counter Air, Multi-Mission Signal Processor, and Standard Missile (SM-6) modularization of the combat system software. Aegis ACB 12 / TI 12 will field on Baselines 3 / 4 Cruisers and Baseline 5 Destroyers.

Aegis ACB 12 includes the integration of two third-party developed common components, a System Track Manager and a Track Server. These first two combat system common assets are being developed by GD-AIS and will be integrated into Aegis ACB 12 and SSDS for CVN 78. This development and integration effort is allowing PEO IWS to pilot engineering and management processes for development of third-party assets that will be used in Fiscal Year 2009 and beyond when additional common component development efforts are started.

The other major in-service combat system in the Surface Navy is the SSDS. SSDS is fielded on most of the Navy's amphibious class ships and all carriers. The SSDS Mark 2 employs COTS electronics in rugged cabinets; POSIX-Compliant Operating Systems (POSIX is an industry open standard); distributed processing using COTS devices and commercial standards; and modularized software adhering to software engineering layering principles. Additionally, the software for all ship classes employing SSDS comes from a single source library that allows reuse across all SSDS ships. The most recent technology refresh upgrade to SSDS, called SSDS OA, began its Fleet introduction with USS NIMITZ (CVN 68) in Fiscal Year 2008.

PEO IWS completed and released the AMP 2008 to SHARE. The AMP is divided in five sections: Surface Navy Combat Systems Engineering Strategy; Open Business Model Roles and Responsibilities; Combat Systems Modernization Process; Life-Cycle Support Considerations and Opportunities; and Combat System Test and Certification. In addition to addressing OA, the AMP describes how the Navy will build and maintain future combat systems using open acquisition principles and tenets. A key portion of the AMP is dedicated to defining common technical, business and programmatic taxonomy. The AMP is a strategic document and the Surface Navy will expand on topics in the AMP in other program documentation. Approved by ASN(RDA) in January 2009, the AMP provides a Surface Domain Combat System roadmap for achieving an open objective combat system architecture.

One of the documents required by the AMP is the "Surface Navy Combat Systems Product Line Software Architecture Description Document" (ADD). This document, applicable across all surface combatant ship classes, addresses the technical architectural framework that will allow development of open combat systems. PEO IWS released an initial draft of the ADD into SHARE for comment in November 2008; it will be published in the third quarter of Fiscal Year 2009 for use in program execution.

The purpose of the ADD is to define the architecture to a level sufficient to guide transformation of combat systems. The ADD addresses incremental development, software lifecycle management, use of Information Technology Standards, use of COTS, and licensing and data rights. The ADD supports developer efforts to design and build components that adhere to government-coordinated interfaces. The purpose of the ADD is to facilitate the re-use of combat system products while enabling more rapid capability insertion through both commercial development and more effective transition of S&T products. Decisions for actual development will be made by the PEO IWS Architecture Control Board in coordination with the cognizant PMOs and OPNAV.

Government-coordinated interfaces, with formally defined interface requirements and designs, maintained under government configuration control, are integral to achieving a product line approach across the Surface Navy's combat systems. The Navy will exercise its data rights and maintain control over the combat systems architecture down to the component level through a PEO IWS-chaired Architecture Control Board. This board will manage changes to the architecture and make use of a broad peer review process to ensure all stakeholders are involved.

PEO IWS 5, Surface ASW Systems, acting as a member of both the ASW COI and the Surface Domain, has articulated a strategy to reuse functional ASW components across multiple surface platforms, including LCS, DDG 1000, CG(X), DDG 51 Flight IIA, and CG 47 classes in support of Aegis Modernization (AMOD). For Aegis combat system platforms, ASW functionality from multiple legacy programs will be transitioned to the OA AN/SQQ-89A(V)15 as part of CG and DDG modernization programs and programmed DDG 79-112 backfits. Capability upgrades are planned for Advanced Capability Builds ACB 09, ACB 11, and beyond. ACB 09 improvements will focus on search, classification, and engagement.

Through alignment with the Surface Ship Combat System Objective Architecture, AN/SQQ-89A(V)15 modular ACB capabilities will be provided for CG(X), DDG 1000 and LCS as required. ACB 09 software integration has begun and ACB 11 requirements definition and Integrated Master Schedule have been completed.

The AN/UYQ-100 Undersea Warfare Decision Support System (USW-DSS) will provide cross-domain ASW Command and Control for all ASW platforms and shore nodes. Currently under development, the second Advanced Capability Build (ACB 09) focuses on the ASW Common Tactical Picture and will begin fleet deliveries in 2009. USW-DSS is also starting development of its third ACB (ACB 11). USW-DSS is also a Consolidated Afloat Network and Enterprise Services (CANES) early adopter, and has been developed with modular OA-compliant software that can be readily ported to platforms and shore stations that do not yet have CANES infrastructure. CANES is a Chief of Naval Operations-directed and PEO C4I-led approach to reduce C4I, Surveillance and Reconnaissance computing infrastructure and provide increased capability across the afloat network enclaves. Like the Surface Domain's combat system efforts, the emphasis of the CANES implementation is on common architecture, open standards and business practices, and tight adherence to specifications by providers of hardware and software applications.

B. Surface Domain Open Architecture 2009

The integration of new combat system software capabilities and technologies will be synchronized into periodic ACBs, nominally on a two-year cycle. However, potential constraints include the time to certify a software baseline in all of its configurations, time to field and training time.

Hardware upgrades will be planned as Technology Insertions (TIs), synchronized with ACBs but on a longer cycle of approximately four years. The fielding time is driven by the funding and ship availabilities. For new construction ships and ships already upgraded to an ACB/TI infrastructure, upgrade periods will only address changes between TIs and will not require major shipyard availabilities. For non-ACB/TI ships, the rate of combat systems modernization is dependent on shipyard availability and the Fleet Response Plan. ACB software will be designed to run on current TI as well as one previous TI. For example, ACB 16 will run on TI 12 and TI 16.

A product-line approach will be used for developing any new components associated with core combat management improvement components. Core components will be placed in a Common

Asset Library (CAL). The CAL will be a repository of objective architecture-compliant common software components that have been validated by the Government and that can be integrated with other components to create ACBs. Components selected and approved for reuse will be placed under configuration management control in a CAL maintained in the SHARE or successor repository. Artifacts maintained for each common component will include requirements and design documentation, models, test procedures source codes, and test results.

In 2009, the Surface Navy will continue to pursue the technical and programmatic opening and convergence of Surface Navy combat systems through a variety of activities.

- The transformation of the Aegis fleet to ACBs / TIs continues. An additional two cruisers are slated to receive Aegis ACB 08 / TI 08 in 2009. Additionally, Aegis ACB 12 / TI 12 are on track for Critical Design Review in late 2009.

- Aegis ACB 14 will be the first regular Aegis ACB developed as an upgrade to a ship's initial ACB/TI Combat System modernization. (Note: PEO IWS 5 will deliver ACB 09 ASW capability to DDG-51 Flight IIA platforms; ASW ACB 12 will be integrated into AMOD). Requirements for Aegis TI 14 / ACB 14 will be finalized by the requirements sponsor to support the Fiscal Year 2012 budget development process.

- In terms of guiding documentation, the Surface Navy will begin the revision process for AMP 2009 with an expected publication date in December of 2009. As previously mentioned, the draft ADD will also be revised and updated for publication in the second quarter of Fiscal Year 2009.

- PEO IWS is also completing an initial draft of a Rapid Capability Insertion Process (RCIP) instruction for the Surface Navy Acquisition Community. A key part of RCIP is requirements and candidates definition. OPNAV N86 is working on an instruction for managing requirements and identifying RCIP candidates. While OPNAV N86 is responsible for defining capability requirements, PEO IWS is responsible for capability acquisition. Completion of the first version of PEO IWS' RCIP acquisition process instruction is expected in the early part of 2009.

- 2009 will also see full and open competition for electronic warfare / softkill integration (Surface Electronic Warfare Improvement Program Block 2 (SEWIP BLK 2)).

C. Surface Domain Challenges

The Navy is using an open acquisition process to develop a Government-controlled Combat System Objective Architecture design model that defines a set of common components and component interfaces to the level where component development can be competed and compliance of resulting components to that architecture can be verified. Common components will be maintained in the CAL and will be integrated into multiple combat systems over time. Currently, two common components are under development – System Track Manager and Track Server – and are planned to be integrated into Aegis ACB 12 and SSDS ACB 12 for CVN 78. Additional common component development efforts will be started in Fiscal Year

2009 and will be targeted for integration into ACB 14 for multiple ship classes. A product line roadmap is under development to itemize the common components planned for competition and their target ACB integration windows.

Common components will be derived from future RCIP activities and alignment of development efforts to support combat system ACB 12/14/16 processes. The Government will direct development of common reusable components from a number of potential sources, including current Programs of Record. Components of known pedigree from Aegis, SSDS, and DDG 1000 will be leveraged as the starting point for common component development to minimize new development, reduce the risk of integration, and optimize return on investment. The reusable components will be aligned to the objective architecture and will be the foundation of the CG(X) combat system.

The DDG 1000 Total Ship Computing Environment (TSCE) was designed from the ground up to be an OA system. OA is a DDG-1000 operational requirement inclusive of formal verification events to ensure that the requirement is met.

The combat system design for the DDG 1000 started prior to the establishment of the objective architecture, so the DDG 1000 TSCE architecture is not completely aligned with the objective architecture. However, there is enough consistency between the DDG 1000 TSCE architecture and the objective architecture that DDG 1000 will be able to provide source code that can be used as a starting point for some of the new common components that will be added to the CAL. The open nature of the DDG 1000 TSCE also allows it to take advantage of reusable components from the CAL in areas where the DDG 1000 functional architecture is aligned to the objective architecture. Similar opportunities may exist for LCS since those combat systems were also developed to OA principles. This creates an opportunity for both LCS and DDG 1000 combat systems to evolve into the ACB / TI cycle approach. This will be investigated as the objective architecture matures. The Navy will consider open acquisition processes as it reviews the acquisition strategy for future LCSs.

The Navy is committed to realizing the potential of open systems and open business models. A byproduct of the opening of combat systems will be increased opportunities for competition. The Surface Navy's transition to open objective architecture-based combat systems and business models is not a minor effort and involves the methodical application of sound systems engineering and business principles across the entire Navy enterprise. This includes active involvement and coordination between disparate organizations with unique expertise and legal, fiscal and programmatic responsibilities.

The Navy intends to transition to objective architecture-based combat systems based on reusable common components as quickly as operational and fiscal constraints allow.

IV. Domain Plans for 2009

A. Air Domain

The Air Domain is continuing its efforts in accordance with the roadmap published in the First Report to Congress. The Air Domain focus in 2009 will remain on,its keystone OA programs – the E-2C/E-2D and the P-3C/P-8A aircraft. The BAMS unmanned aerial vehicle and the JPALS programs successfully passed through Milestone B in 2008. Both programs incorporated language from the *OA Contract Guidebook* and included the requirement for the OSMP in their CDRLs. These programs will be monitored for OA best practices and lessons learned for future programs. Programs currently in pre-Milestone A or Milestone A that are developing OA strategies include the Next Generation Jammer, Joint and Allied Threat Awareness System, EP-X aircraft, Small Tactical Unmanned Aircraft System and the Navy-Unmanned Combat Aerial System.

B. C4I Domain

The C4I Domain is refining its Early Adopter process to collaboratively develop systems which will utilize specific Core Services in the immediate Integrated Shipboard Network System (ISNS Inc 1 Mod 5) installations or future Consolidated Afloat Network Enterprise System (CANES). PEO C4I has established a design budget initiative to deliver C4I equipment suites as late as possible during ship construction in order to avoid having to make costly upgrades shortly after ship commissioning. This is part of a continuous process improvement effort which will be replicated to multiple platforms. Lastly, in collaboration with ASN(RDA) CHSENG, PEO C4I is promulgating the NTRM to the major System Commands and Program Executive Offices for adoption. This will provide a common capability model to aid in portfolio management and clearly outline the responsible commands for specific capability development.

C. Submarine Domain

The Submarine Domain continues to exploit OA in Sonar, Tactical Control, Weapon Control, Electronics Warfare and Imaging through Virginia Class new construction and in-service modernization programs. Ongoing competitions for Combat System Subsystems include OA requirements and new automated testing requirements to continue efforts to deliver new capability with reduced cycle time and cost.

D. Space Domain

The Space Domain will continue maturation of initiatives that began in 2008. The process formalized in the S&T CONOPS will be exercised over its first full year. The Hosted Payload contract will be awarded in 2009, delivering open interfaces to the satellite bus. A collaboration process with developers who have received the MUOS waveform is envisioned using the NESI website. The NPS MOA objectives will be instituted and space curriculum updates integrated.

E. Surface Domain

(See section III)

V. Summary

The Fifth Naval OA Report to Congress provides an update of NOA program accomplishments since the Fourth Report was submitted to Congress in November 2008, focusing on the period of October 1 to December 31, 2008. It also provides an update on the Surface Domain and the Aegis Combat System OA implementation program plan. Finally, the Fifth Report to Congress also provides updates on activities at the Domain level that occurred from July 1 through December 31, 2008.

The Naval Enterprise continues to make progress in the implementation of OA. Through the use of appropriate policies and guidance, business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements more rapidly and efficiently. By shortening the development timeline, using full and open competition to leverage common warfighting capabilities, and focusing Fleet-identified problems, the Navy will obtain more capable and effective combat systems. Continued progress across the Naval Enterprise is anticipated next quarter and will be reported in the Sixth and subsequent Reports to Congress.

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

ACTION MEMO

IN REPLY REFER TO:
March 17, 2009

FOR: UNDER SECRETARY OF DEFENSE (POLICY)

FROM: VADM J. C. Harvey, Jr., Director, Navy Staff 3/19/09

SUBJECT: Humanitarian Assistance (HA) Requirements of the Navy

- Madame Secretary, request your review and comment on TAB A for subsequent release to all appropriate Committees.

- The Fiscal Year 2009 National Defense Authorization Act House Committee Report (110-652) requires review and comment by SECDEF of the Navy's personnel, equipment, and platform requirements for HA missions by 1 April, 2009. Specifically, the report requires coordination with the Joint Staff for a review of the current/future personnel requirements to support the HA and disaster response (DR) missions outlined in the Maritime Strategy and the current/future viability of building new HA platforms based on existing hull forms.

- The Department of the Navy has prepared this report. A summary of the key points is provided below.

  - All Navy platforms are capable of conducting HA and DR missions with existing personnel and equipment, and they have done so in the past.

  - The Navy builds multi-mission platforms with full spectrum capabilities. Building HA-focused platforms would be far less effective at meeting these requirements.

- Bottom line: Navy's requirement for multi-mission platforms is adequately captured in the Annual Long-Range Plan for the Construction of Naval Vessels, which identifies a 313-ship Fleet as the minimum force structure required to execute the Maritime Strategy.

RECOMMENDATION: Review TAB A, and forward, along with comments to the Defense Subcommittees and Appropriations Committees.

COORDINATION: TAB B

ATTACHMENTS:
None

Prepared by: Mr. Brian Kawamura, N526 GMP, (703) 697-4135

HUMANITARIAN ASSISTANCE AND DISASTER RESPONSE (HA/DR) PERSONNEL, EQUIPMENT, AND PLATFORM REQUIREMENTS

I. Introduction

The following response is submitted in reference to the House of Representatives House Armed Services Committee (HASC) report 110-652 (pg. 422) directing the Secretary of Defense (SECDEF) to review personnel and equipment requirements and the viability of current naval platforms that perform humanitarian assistance and disaster response (HA/DR) missions outlined in the maritime strategy, *A Cooperative Strategy for 21st Century Seapower.* Specifically:

> *The committee notes the many humanitarian assistance and disaster response missions undertaken by the Department of Defense each year. The committee is also aware of the central role placed on humanitarian assistance and disaster response in the new maritime strategy jointly authored by the Navy, Marine Corps, and Coast Guard entitled ''A Cooperative Strategy for 21st Century Seapower.'' The new strategy declares that preventing wars is as important as winning wars, and that executing the strategy will require globally distributed, mission-tailored maritime force packages. The committee therefore directs the Secretary of Defense to undertake a comprehensive review of current and projected personnel and equipment requirements to meet the humanitarian assistance and disaster response missions described in the new maritime strategy. The committee further directs the Secretary to review current naval vessels that perform this mission, assess their current and future viability, and prepare an analysis on the potential benefit of building new humanitarian assistance platforms based on existing vessels including, but not limited to, the T–AKE and LPD–17 hull forms. The committee directs the Secretary, in consultation with the Chairman of the Joint Chiefs of Staff, to prepare and submit a report on these reviews, including any comments the Secretary considers necessary regarding the consistency of this maritime strategy with the national military strategy and the report of the Quadrennial Defense Review, among other related strategy documents, to the congressional defense committees by April 1, 2009.*

II. The Maritime Strategy: *A Cooperative Strategy for 21st Century Seapower*

Guided by the objectives specified in the *National Security Strategy*, *National Defense Strategy*, *National Military Strategy*, and the *National Strategy for Maritime Security*, the maritime strategy, *A Cooperative Strategy for 21st Century Seapower*, represents the unified strategy of the nation's maritime services—the Navy, Marine Corps, and Coast Guard. Fundamental to this strategy is the belief that preventing wars is as important as winning wars. The strategy identifies six maritime core capabilities that the maritime services will use to emphasize activities that prevent war and build global maritime partnerships: forward presence, deterrence, sea control, power projection, maritime security, and humanitarian assistance/disaster response (HA/DR). To satisfy the HA/DR capability, the Navy conducts pre-planned, proactive humanitarian assistance (HA) missions to the Pacific, Latin American, and Caribbean regions, and it remains committed to conducting reactive disaster response (DR) missions in response to natural or man-made crises.

III. Personnel and Equipment

All naval vessels from frigates to amphibious ships to aircraft carriers are capable of performing DR missions with their normal personnel and equipment operating load out and have done so in the past without special preparations. For example, USS RONALD REAGAN Carrier Strike Group (CSG) was on its way to support coalition operations in Afghanistan and promote regional maritime security when it provided disaster relief in the wake of Typhoon Fengshen which struck the Philippines in June 2008. All six ships in the CSG contributed to the delivery of over 519,000 pounds of freshwater, rice, and medical supplies over an eight day period.

Similar to DR, all Navy ships are capable of performing pre-planned, proactive HA. However, the effectiveness of these missions is enhanced when the personnel and equipment involved are specifically tailored to the needs of the host nation and region. USS KEARSARGE (LHD 3)—a WASP class amphibious assault ship, originally designed to support the movement of Marines ashore, deployed to the U.S. Southern Command (SOUTHCOM) area of responsibility from August to December 2008 to conduct CONTINUING PROMISE 2008 with a diverse array of personnel and equipment. In addition to the ship's normal crew, staff from Amphibious Squadron (PHIBRON) 8 embarked aboard KEARSARGE as the overall command element for the mission and were augmented by roughly 300 medical and engineering personnel from the Joint and interagency communities (i.e. Army, Air Force, and U.S. Public Health Service), as well as partner nation medical practitioners from Canada, Brazil, The Netherlands, and France. Additionally, KEARSARGE deployed with two MH-60S Knighthawk and six CH-53E Super Stallion helicopters, one Landing Craft Utility (LCU), and two Landing Craft Mechanized (LCM) amphibious craft to support the movement of personnel and equipment ashore.

The Navy also increased its level of commitment to working cooperatively with the Non-governmental Organization (NGO) community. NGOs enhance the Navy's existing HA capabilities by providing volunteers and donations, as well as vital host nation contacts, a deep understanding of the local historical/cultural context, and the long-term sustainability of effort that directly supports mission objectives. Although the Navy is able to conduct HA/DR missions on its own with its current personnel and equipment, these efforts are much more effective with the support and participation of the Joint, Interagency, NGO, and international communities.

IV. Platforms

To support the six core capabilities in the maritime strategy, the Navy builds multi-purpose surface vessels capable of performing the full spectrum of missions, and it will continue to do so to meet the diverse challenges of the operating environment; an HA-specific platform would be less capable of meeting other warfighting requirements. For example, several months prior to CONTINUING PROMISE 2008, KEARSARGE was forward deployed in the Arabian Gulf projecting U.S. maritime and military power, enhancing regional maritime security, deterring potential aggressors, and exercising sea control, while providing critical air support to ground forces operating in Iraq and Afghanistan. Following that deployment, she prepared for a proactive HA mission to SOUTHCOM, and then quickly shifted missions to provide emergent DR support to Haiti in the aftermath of Hurricanes Hanna and Ike.

The requirement for multi-mission ships is adequately captured in the Report to Congress on Annual Long-Range Plan for the Construction of Naval Vessels, which identifies a 313-ship fleet as the minimum force structure required for the Navy to execute the missions identified in the maritime strategy at an appropriate level of risk and cost. The Navy has modified this plan for President's Budget (PB) 2010 to procure additional Joint High-Speed Vessels (JHSV) in the Future Years Defense Plan (FYDP) to better meet HA/DR needs, Combatant Commander (COCOM) requirements for intra-theater lift, and Theater Security Cooperation (TSC). Any further adjustments to the mixture of ships in the 313-ship fleet such as the increased procurement of HA-only focused platforms would increase risk in the Navy's ability to meet COCOM demand for rotational forces deployed in support of standing requirements, and surge forces employed in support of emergent requirements.

To meet COCOM demand, the Navy's Fleet Response Plan (FRP) provides full spectrum operational capability across all Navy deployable force structures. The FRP measures operational employability capacity to produce sufficient naval forces required to maintain global presence, meet the most stressing Operation Plan (OPLAN), defend the homeland, and train operational units. To meet these demands the Navy must maintain a force structure that supports a forward naval posture as well as warfighting and peacetime requirements across the entire spectrum.

Ultimately, the Navy's force structure and force structure assessments adhere to approved Defense Planning Guidance in the 2020 timeframe, and are designed to meet both peacetime and warfighting demand. This demand is determined using campaign-level modeling and simulation of the Office of Secretary Defense (OSD), approved Defense Planning Scenarios staffed by the Services and COCOMs, and requires final approval by the Secretary of Defense (SECDEF). Taking all of these factors into account the Navy has determined that the 313-ship fleet described in the Report to Congress on Annual Long-Range Plan for the Construction of Naval Vessels provides the best combination vessels to meet the multitude of challenges in today's operating environment.

REPORT TO CONGRESS

Projected Base Population Increases for Marine Corps Installations

Prepared by:

Total Force Structure Division
Marine Corps Combat Development Command
3300 Russell Road
Quantico, VA 22134-5001

March 2009

TABLE OF CONTENTS

Background.....3
Discussion.....3
Appendix A.....5
Appendix B.....6

Projected Base Population Increases for Marine Corps Installations

BACKGROUND

House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill 2009 directed the Army and Marine Corps to submit a report no later than 1 October 2008, and semi-annually thereafter, to the Committees on Appropriations of both Houses of Congress on projected base population increases for installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under Base Realignment and Closure (BRAC), global restationing, and Growing the Force. The excerpt of HR 110-775, establishing the reporting requirement, is provided at Appendix A.

DISCUSSION

The Marine Corps report is provided at Appendix B. The information reflects population growth related to BRAC actions and the Marine Corps' "Grow the Force" initiative. The installations identified in Appendix B are those that meet the reporting threshold (i.e., at least an additional 1,000 permanent party military personnel compared to the 2003 baseline).

Military personnel information is based on Assigned Strength Reports (ASRs) provided by the Total Force Structure Division (TFSD) of the Marine Corps Combat Development Command. Information relating to dependents and school-aged dependent children is based on the "Total Force Data Warehouse" information system. Accordingly, that information from 2010 and forward is estimated.

Six Marine Corps installations were identified as meeting the prerequisite of adding at least 1,000 permanent party military personnel in the given timeframe. Those installations are:

- Marine Corps Base Camp Lejeune, North Carolina;
- Marine Corps Air Station New River, North Carolina;
- Marine Corps Base Camp Pendleton, California;
- Marine Corps Air Station Cherry Point, North Carolina;
- Marine Corps Base Quantico, Virginia; and
- Marine Corps Air Ground Combat Center Twentynine Palms, California.

All of the installations listed above will experience more than 20 percent growth in base population by FY 2013 (as compared to FY 2003). The number of school-age dependents will not necessarily increase by the same magnitude due to Marine Corps demographics, which feature a proportionately younger and junior force.

To address school impacts at Marine Corps Base Camp Lejeune, the following Department of Defense Education Activity (DoDEA) schools are planned (The fiscal years indicate when planning began or will begin):

FY 2008:	NEW ELEMENTARY SCHOOL
FY 2009:	NEW ELEMENTARY SCHOOL
FY 2010:	MIDDLE SCHOOL ADDITION
FY 2011:	HIGH SCHOOL ADDITION
FY 2012:	NEW ELEMENTARY SCHOOL

The Marine Corps plans to facilitate the construction of the above schools through the use of military housing privatization authorities, which authorize the construction of ancillary supporting facilities (such as schools) in conjunction with housing privatization projects.

At the other locations, the Marine Corps is engaged with the local communities to keep them informed of the plans for installation growth. This is accomplished through Community Plans and Liaison Offices and School Liaison Officers, established by the Marine Corps at each installation, to improve communications with communities through outreach, raise public awareness, create working relationships with stakeholders and influence local, regional and state decisions that affect the military.

House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009.

BRAC, Global Restationing, Growing the Force, and Local School Impacts.—The Committee remains concerned by the impact that Base Realignment and Closure (BRAC), global restationing, and the Growing the Force initiative will have on the ability of localities near growing bases to accommodate increased demands for off-base infrastructure such as schools. In order to help local communities plan and budget for such impacts, the Committee directs the Department of Defense to keep the responsible authorities fully informed about the effects of force structure changes on base populations. The Committee further directs the Army and Marine Corps to submit no later than October 1, 2008, and semi-annually thereafter, to the Committees on Appropriations of both Houses of Congress an updated report on projected base population increases for those installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force. In addition, the total growth in base population for each installation from 2003-2013; this report shall provide, at minimum, a breakout of the data for each such installation showing the growth during the same period in the numbers of permanent party active duty military members, Department of Defense civilians, Reserve component personnel, students and trainees, contractors, military family members, school age children of military family members, and school age children of DoD civilians. In addition, the report shall also contain a description of the status of local school construction efforts at all installations with an expected base population growth of 20 percent or more.

Report on Projected Marine Corps Base Population Increases

As of March 2009

INSTALLATION	Military Active Duty	Military Reserve	Total	DoD Civilian	Students / Trainees	Contractors	Military Dependents	Total Population	Military School Age Dependents	DoD Civilian School Age Dependents	Total School Age Dependents
2003											
CAMP LEJEUNE NC	30,526	331	30,857	1,674	7,224	N/A	16,061	55,816	7,207	810	8,017
CAMP PENDLETON CA	31,196	1,166	32,362	1,419	317	N/A	26,712	60,810	11,738	687	12,425
CHERRY POINT NC	8,037	64	8,101	1,086	402	N/A	6,634	16,223	3,083	525	3,608
NEW RIVER NC	5,018	6	5,024	153	309	N/A	6,420	11,906	3,027	74	3,101
QUANTICO VA	4,828	429	5,257	1,305	1,458	N/A	9,414	17,434	4,463	631	5,094
TWENTYNINE PALMS CA	8,991	77	9,068	673	2,148	N/A	6,915	18,804	3,289	326	3,615
2009											
CAMP LEJEUNE NC	38,833	900	39,733	2,189	7,713	1,620	28,674	79,929	7,841	2,616	10,457
CAMP PENDLETON CA	37,885	1,392	39,277	1,911	9,031	857	35,752	86,828	9,178	2,359	**11,537**
CHERRY POINT NC	8,919	68	8,987	901	3,127	411	10,829	24,255	3,213	949	4,162
NEW RIVER NC	5,731	21	5,752	197	2,185	445	7,465	16,044	2,224	323	2,547
QUANTICO VA	5,691	745	6,436	3,948	3,391	4,076	10,213	28,064	3,439	1,307	4,746
TWENTYNINE PALMS CA	11,059	196	11,255	1,001	2,419	215	9,424	24,314	2,476	1,300	3,776
2010											
CAMP LEJEUNE NC	39,873	901	40,774	2,192	7,713	1,620	29,136	81,435	7,990	2,616	**10,606**
CAMP PENDLETON CA	38,488	1,392	39,880	1,920	9,031	857	36,059	87,747	9,277	**2,352**	**11,629**
CHERRY POINT NC	9,314	68	9,382	901	3,127	411	11,020	24,841	**3,284**	949	4,233
NEW RIVER NC	5,745	21	5,766	197	2,185	445	7,465	16,058	2,224	323	**2,547**
QUANTICO VA	5,700	744	6,444	3,997	3,391	4,076	10,213	28,121	3,439	1,307	4,746
TWENTYNINE PALMS CA	11,375	196	11,571	1,037	2,419	215	9,477	24,719	2,489	1,300	3,789
2011											
CAMP LEJEUNE NC	39,937	901	40,838	2,192	7,713	1,620	29,132	81,495	**7,988**	2,605	**10,593**
CAMP PENDLETON CA	38,710	1,392	40,102	1,965	9,031	857	36,200	88,155	**9,329**	**2,352**	**11,681**
CHERRY POINT NC	9,298	68	9,366	901	3,127	411	11,020	24,825	**3,284**	949	4,233
NEW RIVER NC	6,555	21	6,576	197	2,185	445	7,674	17,077	2,302	323	**2,625**
QUANTICO VA	5,601	744	6,345	3,997	3,391	4,534	10,371	28,638	3,497	2,430	5,927
TWENTYNINE PALMS CA	11,549	196	11,745	1,054	2,419	215	9,835	25,268	2,621	1,300	3,921
2012											
CAMP LEJEUNE NC	40,085	901	40,986	2,192	7,713	1,620	29,132	81,643	**8,013**	2,605	**10,618**
CAMP PENDLETON CA	38,747	1,392	40,139	1,965	9,031	857	36,200	88,192	**9,349**	**2,352**	**11,701**
CHERRY POINT NC	9,379	68	9,447	901	3,127	411	11,020	24,906	**3,297**	949	**4,246**
NEW RIVER NC	6,542	21	6,563	197	2,185	445	7,674	17,064	2,302	323	**2,625**
QUANTICO VA	5,463	744	6,207	3,994	3,391	4,534	10,371	28,497	**3,480**	2,430	**5,910**
TWENTYNINE PALMS CA	11,726	196	11,922	1,054	2,419	215	9,835	25,445	**2,653**	1,300	**3,953**
2013											
CAMP LEJEUNE NC	40,110	901	41,011	2,192	7,713	1,620	29,132	81,668	**8,013**	2,605	**10,618**
CAMP PENDLETON CA	38,781	1,392	40,173	1,965	9,031	857	36,200	88,226	9,329	**2,352**	**11,701**
CHERRY POINT NC	9,379	68	9,447	901	3,127	411	11,020	24,906	**3,297**	949	**4,246**
NEW RIVER NC	6,545	21	6,566	197	2,185	445	7,674	17,067	2,302	323	**2,625**
QUANTICO VA	5,464	744	6,208	3,994	3,391	4,534	10,371	28,498	**3,480**	2,430	**5,910**
TWENTYNINE PALMS CA	11,739	196	11,935	1,054	2,419	215	9,835	25,458	**2,653**	1,300	**3,953**

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

APR 1 2009

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the semiannual report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter is also being provided to Chairmen Inouye, Obey, and Edwards.

Sincerely,

BJ Penn

Enclosure:

Copy to:
The Honorable Kay Bailey Hutchison
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

APR 1 2009

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the semiannual report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter is also being provided to Chairmen Obey, Inouye, and Johnson.

Sincerely,

BJ Penn

Enclosure:

Copy to:
The Honorable Zach Wamp
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable David R. Obey
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

APR 1 2009

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the semiannual report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter is also being provided to Chairmen Inouye, Edwards, and Johnson.

Sincerely,

BJ Penn

Enclosure:

Copy to:
The Honorable Jerry Lewis
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Daniel K. Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6028

APR 1 2009

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the semiannual report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter is also being provided to Chairmen Obey, Johnson, and Edwards.

Sincerely,

BJ Penn

Enclosure:

Copy to:
The Honorable Thad Cochran
Ranking Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Senate Armed Services Committee Report (Senate Report 110-335) to accompany the Senate version of the National Defense Authorization Act for Fiscal Year 2009 (S.3001) directed the Secretary of the Air Force and the Secretary of the Navy to review their Aviation Career Incentive Pay (ACIP) programs, their assignment of officers qualified for aviation service to non-flying duty assignments, and the effect of these assignments on these officers' continued eligibility for ACIP. The committee directed the Secretaries to report to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2009 on the results of their respective reviews.

Enclosed report on the Department of Navy ACIP program is submitted. In summary, the assignment of aviators to GSA and IA billets to date has had no significant impact on the ACIP waiver submission process.

A similar letter has been sent to Chairmen Skelton, Levin, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure

Copy (w/enclosure) to:
The Honorable C.W. Bill Young
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Senate Armed Services Committee Report (Senate Report 110-335) to accompany the Senate version of the National Defense Authorization Act for Fiscal Year 2009 (S.3001) directed the Secretary of the Air Force and the Secretary of the Navy to review their Aviation Career Incentive Pay (ACIP) programs, their assignment of officers qualified for aviation service to non-flying duty assignments, and the effect of these assignments on these officers' continued eligibility for ACIP. The committee directed the Secretaries to report to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2009 on the results of their respective reviews.

Enclosed report on the Department of Navy ACIP program is submitted. In summary, the assignment of aviators to GSA and IA billets to date has had no significant impact on the ACIP waiver submission process.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure

Copy (w/enclosure) to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Senate Armed Services Committee Report (Senate Report 110-335) to accompany the Senate version of the National Defense Authorization Act for Fiscal Year 2009 (S.3001) directed the Secretary of the Air Force and the Secretary of the Navy to review their Aviation Career Incentive Pay (ACIP) programs, their assignment of officers qualified for aviation service to non-flying duty assignments, and the effect of these assignments on these officers' continued eligibility for ACIP. The committee directed the Secretaries to report to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2009 on the results of their respective reviews.

Enclosed report on the Department of Navy ACIP program is submitted. In summary, the assignment of aviators to GSA and IA billets to date has had no significant impact on the ACIP waiver submission process.

A similar letter has been sent to Chairmen Skelton, Inouye and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure

Copy (w/enclosure) to:
The Honorable John S. McCain
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
United States House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Senate Armed Services Committee Report (Senate Report 110-335) to accompany the Senate version of the National Defense Authorization Act for Fiscal Year 2009 (S.3001) directed the Secretary of the Air Force and the Secretary of the Navy to review their Aviation Career Incentive Pay (ACIP) programs, their assignment of officers qualified for aviation service to non-flying duty assignments, and the effect of these assignments on these officers' continued eligibility for ACIP. The committee directed the Secretaries to report to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2009 on the results of their respective reviews.

Enclosed report on the Department of Navy ACIP program is submitted. In summary, the assignment of aviators to GSA and IA billets to date has had no significant impact on the ACIP waiver submission process.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Enclosure

Copy (w/enclosure) to:
The Honorable John McHugh
Ranking Minority Member

REPORT TO CONGRESS

Navy Aviation Career Incentive Pay Program

February 2009

BACKGROUND

SASC has received reports of officers qualified for aviation service missing their "gate" thresholds for continued eligibility for receipt of aviation career incentive pay (ACIP) due to non-flying assignments, including "in lieu of" or individual augmentee (IA) assignment in Operations Enduring Freedom and Iraqi Freedom.

The Senate Armed Services Committee Report (Senate Report 110-335) to accompany the Senate version of the National Defense Authorization Act for Fiscal Year 2009 (S.3001) directed the Secretary of the Air Force and the Secretary of the Navy to review their Aviation Career Incentive Pay (ACIP) programs, their assignment of officers qualified for aviation service to non-flying duty assignments, and the effect of these assignments on these officers' continued eligibility for ACIP. The committee directed the Secretaries to report to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2009 on the results of their respective reviews.

MARINE CORPS AVIATION CAREER INCENTIVE PAY

1. A 24 Month review of USMC ACIP waiver requests indicates no correlation between GWOT GSA and an aviator's failure to meet the MOF and associated flight gate requirements.

2. Of the seventeen ACIP waiver requests submitted by the USMC during this period, three were disapproved by SECNAV. None of the officers ailing to receive a SECNAV waiver had served in any GSA capacity prior to submission of their request.

3. MOF credit for USMC aviators serving in non-flying GWOT related billets is derived from the original tour from which the officer was assigned. Although the potential exists, the assignment of USMC aviators to GSA and IA billets to date has had no negative impact on the ACIP waiver submission process.

NAVY AVIATION CAREER INCENTIVE PAY

1. Title 37, United States Code, section 301a, Incentive Pay: Aviation Career, establishes the following:

> a. An eligible aviator is defined as an individual "(W)ho is entitled to basic pay, holds an aeronautical rating or designation and is qualified for aviation service under regulations prescribed by the Secretary concerned, is entitled to continuous monthly incentive pay in the amount set forth in subsection (b) that is applicable to him."
>
> b. To be entitled to continuous monthly incentive pay, an officer must perform the prescribed operational flying duties for eight of the first 12, and 12 of the first 18 years of the aviation service of the officer.

c. Entitlement to continuous ACIP is suspended after 25 years of aviation service or if the individual fails to meet minimum months of flying (MOF) requirements for the 12 and 18-year flight gates.

2. BUPERSINST 7220.29A establishes that an officer will receive continuous ACIP regardless of assignment, as long as the individual accumulates the minimum MOF requirement by the 12 and 18-year gates.

a. Although GSA (GWOT Support Assignments) and IA (Individual Augmentee) assignments do not immediately impact the receipt of continuous ACIP, they may impact MOF accumulation towards the minimum requirement at the threshold and thus affect an aviation officer's continuous ACIP eligibility:

- Deployment on an IA assignment is transparent to the MOF accumulation. MOF credit will only continue to accumulate if the billet from which the officer was assigned qualified for MOF credit accumulation. For example, if the officer is assigned to a flying billet, receiving MOF credit, and is subsequently selected for an IA, the officer will continue to accumulate MOF credit during the IA assignment. However, if the officer is assigned to a non-flying billet, not receiving MOF credit, and is subsequently selected for an IA, the officer will not accumulate MOF credit during the IA assignment.
- A GSA assignment may impact an individual's ability to accumulate MOF credit if it is assigned in lieu of or delays assignment to a flying tour.

b. The Secretary of the Navy may grant waivers for continuous ACIP in circumstances in which an officer fails to meet an MOF requirement due to "critical non-flying billet" assignments. Qualifying critical non-flying billets are limited to:

- joint duty;
- joint professional military education while attending any war college,
- Washington, DC area tours;
- Naval Postgraduate School and subspecialty utilization tours;
- recruiting;
- aide duty; and
- disassociated sea tours.

3. In the last year, 27 ACIP gate waivers have been processed, of which, 22 have been approved and five are pending. None of the 27 officers served on an IA assignment prior to missing their associated flight gate.

4. Over the last two years, we have identified six officers who served on an IA who did not meet a MOF requirement. Of these six officers, two failed their flight gate requirement prior to serving as an IA; therefore, their IA service was not a factor. One of the six had broken service and there was no apparent correlation between the IA

assignment and the failed flight gate. Three officers served on an IA prior to missing their gate. Serving in non-flying billets when ordered to an IA assignment, they did not receive MOF credit during their IA tour. While eligible to submit a request for a waiver, to date, they have not done so. Two of the three officers opted to extend in their non-flying tours upon return from their IA assignment, delaying assignment to a flying tour.

a. It is possible that other aviation officers may not meet the MOF requirement after serving on an IA. While IA assignments alone will not cause an officer to miss a gate, IA assignments in combination with other non-flying tours may contribute to insufficient MOF accumulation as will the aforementioned extension of non-flying tours upon return from an IA assignment.

5. Commander Navy Personnel Command (CNPC) is responsible for detailing and managing the careers of over 12,000 naval aviators, including over 7,700 lieutenants and below, 2,300 lieutenant commanders, 1,700 commanders, and 700 captains. Included in this responsibility is sourcing the demand signal from both the Navy and Joint environments. While many of these demand signals involve flying, the majority do not.

a. Table (1) and Figure (1) compare flying and non-flying assignments that Navy is tasked with sourcing in the next six months (1 January 2009 to 30 June 2009). This includes traditional postings only and does not include GSA and IA assignments, the highest priority fills. Table (1) also highlights the assignable inventory compared to the posted demand within the same six month window. Navy is tasked to fill 1,137 postings with 651 available officers, or a capacity to fill only 57.3% of the posted demand.

	Assignable Inventory	AVN Discrete Billets		Non-Discrete Billets		Total		Percent	
		Flying	Non-Flying	Flying	Non-Flying	Flying	Non-Flying	Flying	Non-Flying
CAPT	13	7	22	0	45	7	67	9%	91%
CDR	79	8	62	0	82	8	144	5%	95%
LCDR and Below	559	515	209	0	187	515	396	57%	43%
Total	651	530	293	0	314	530	607	-	-

Table (1). Aviation Flying vs. Non-Flying Requirements.

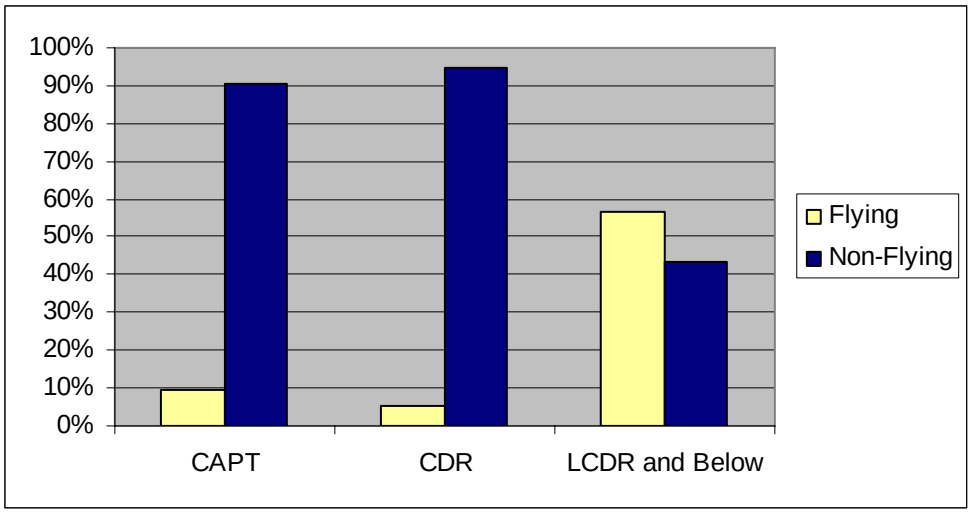


Figure (1). Percent of Aviation Flying vs. Non-Flying Requirements.

6. In the commander and captain ranks, over 90 percent of the billets to fill in the next six months are non-flying assignments. Fifty-seven percent of available assignment to lieutenant commanders and junior are flying billets, but there is still a significant demand to fill non-flying billets for this population. During CY-2008, CNPC filled 180 GSA assignments (lieutenant through captain billets) in addition to traditional postings. Currently, the naval aviation community is sourcing 300 IA assignments. In CY 2009, the naval aviation community anticipates filling approximately 200 GSA requirements (lieutenant through captain billets) in addition to the traditional postings depicted in Table (1). It is important to note that the majority of GSA and IA assignments are not flying assignments and further tip the demand scale in favor of non-flying assignments.

7. In summary, review of the ACIP program indicates that, to date, assignment of aviation qualified officers to GSA and IA assignments has not had a significant impact on accomplishment of MOF accumulation at threshold gates. Review of the assignment of aviation-qualified officers to non-flying duty revealed that there is a significant demand on the aviation community to meet non-flying billet requirements. Since most GSA and IA assignments are non-flying, this demand further increases the requirement to assign aviation qualified officers to non-flying duty.

REPORT TO CONGRESS

Marine Corps Personnel Policies Regarding Assignments in Individual Ready Reserve

April 2009

MARINE CORPS PERSONNEL POLICIES REGARDING ASSIGNMENTS IN THE INDIVIDUAL READY RESERVE

I. Introduction

This report is provided to the Committee on Armed Services of the Senate and House as directed in section 518 of the Joint Explanatory Statement of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009. Section 518 directs the Secretary of the Navy to analyze policies and procedures used by the USMC Reserve from fiscal year 2001 to 2008 to govern the assignment of members of the Marine Corps Reserve in the Individual Ready Reserve. Specifically:

> *The Secretary of the Navy shall conduct a study to analyze the policies and procedures used by the Marine Corp Reserve during fiscal years 2001 to 2008 to govern the assignment of members in the Marine Corps Reserve in the Individual Ready Reserve. The study shall contain, at a minimum, the following elements:*
>
> *(1) Summary of the actual policies and procedures used to assign members of the Marine Corps Reserve to the Individual Ready Reserve and to remove members from the Individual Ready Reserve, to include the grade and authority of the official responsible for making the decision regarding the assignment.*
>
> *(2) the number of members of the Marine Corps Reserve assigned to the Individual Ready Reserve during fiscal years 2001 through 2008.*
>
> *(3) The number of members of the Marine Corp Ready Reserve who spent less than 12 months in the Individual Ready Reserve during fiscal years 2001 through 2008, categorized by the reason provided for assigning the members to the Individual Ready Reserve.*
>
> *(4) The impact of assigning a member of the Marine Corps Reserve to the Individual Ready Reserve on the eligibility of the member for health care coverage under TRICARE.*
>
> *(5) The policies and procedure used to account for members of the Marine Corps Reserve who are excess to a units authorization document, to include members who have selected for promotion or command who have not yet promoted or assumed duties as officers in command.*
>
> *(6) Recommendations for improvements to policies and procedures used to assign members of the Marine Corps Reserve to the Individual Ready Reserve and to remove members from the Individual Ready Reserve.*

1. As directed by Congress, the Marine Corps conducted a study of policies and procedures used by the Marine Corps Reserve during fiscal years 2001 through 2008 to govern the assignment of members of the Marine Corps Reserve in the Individual Ready Reserve (IRR).

2. A summary of the policies and procedures is provided below. The assignment or removal of a Reserve Marine to and from the IRR is based on policies contained in the following:

10 US Code
MCO P1001R.1J (MCRAMM)

MCO P1900.16F (MARCORSEPSMAN)
SECNAVINST 1920.6C
DoDD 1235.13
MCO P5800.16A (LEGADMINMAN)
MCO P1400.31C (MARCORPROMMAN VOL I)
MCO P1400.31D (MARCORPROMMAN VOL II)
MCO 1300R.65

a. Assignment to the IRR from the Active Component. Marines incur an 8-year mandatory service obligation (MSO) upon initial entry into the service. Upon completion of the active component portion of their contract, Marines who choose to leave active service typically fulfill the remainder of their MSO in the IRR. Authority to affect this transfer is with the unit commander per paragraph 1001 of MCO P1900.16F (MARCORSEPSMAN).

b. Assignment to the IRR from the Selected Marine Corps Reserve (SMCR) or Individual Mobilization Augmentee (IMA).

(1) Marines serving in the SMCR who reach their mandatory drill participation stop date may transfer to the IRR to serve the remainder of their MSO. Additionally, Marines serving as an IMA are normally limited to a 3 year tour. Upon completion of a tour in the IMA program, Marines may return to the IRR until they locate another participation opportunity. Authority to effect this transfer remains with the unit commander per MCO P1001R.1J (MCRAMM) and DoDD 1235.13

(2) A Marine may be separated from the SMCR/IMA prior to their initial tour for a myriad of reasons per MCO P1001R.1J (MCRAMM), MCO P1900.16F (MARCORSEPSMAN), and MCO P5800.16A (LEGADMINMAN). For example, a Marine may be awarded administrative discharge from the SMCR or IMA, but still retained in the IRR. Additionally, a Marine may request transfer to the IRR due to excessive commuting distance, working overseas, etc. The commanding general is normally the approval authority in the preceding examples.

c. Assignment to the IRR from the Standby Reserve – Inactive Status List (ISL) or Active Status List (ASL). Marines currently serving on the ISL may request transfer back to the Individual Ready Reserve. Requests are normally approved, provided the member is not beyond their service limits as defined by 10 US Code and MCO P1900.16F (MARCORSEPSMAN). The Commandant of the Marine Corps (CMC) is the approval authority.

d. Removal from the IRR to the ISL. Reserve officers are required to participate while in the Ready Reserve. MARADMIN 303/08 (TAB A) provides guidance regarding when a Marine will be transferred to the ISL for lack of participation. The CG, Mobilization Command has the authority to affect this transfer per MARADMIN 303/08 (Tab A).

e. Removal from the IRR to discharge. When an enlisted Marine reaches the end of their MSO and chooses not to reenlist, they are discharged. Officers who do not positively elect to remain beyond their MSO are discharged within 2 years of their MSO per MCO P1900.16F (MARCORSEPSMAN) and MARADMIN 303/08 (TAB A). Additionally, when a Marine reaches their service limits, they may be discharged.

f. Removal from the IRR to the Retired List. Marines who are retirement eligible may request to be transferred to the Retired List from the IRR.

g. Removal from the IRR due to Death. Upon notice of death, CG MobCom has the authority to remove a Marine from the IRR.

i. Removal from the IRR due to Resignation. Officers may request resignation of their reserve commission. CMC has the authority to approve.

j. Removal from the IRR due to Courts-Martial or Administrative Separation. Marines may be removed from the IRR as a result of court-martial or administrative separation. In each case, the separation authority is normally the Commanding General of Mobilization Command.

k. Removal from the IRR due to Conditional Release. Marines may be released from the IRR to join other services. The Commanding General, Mobilization Command has the authority to approve the release of enlisted Marines, where the Commandant of the Marine Corps has the authority to release officers.

l. Removal from the IRR to join SMCR/IMA/Active Component or Active Reserve. The CG, Mobilization Command has the authority to approve the transfer to another component of the Marine Corps.

3. The number of members of the Marine Corps Reserve assigned to the IRR during fiscal years 2001 through 2008 are provided at TAB B. Strength of the IRR typically varies between 55,000 and 63,000 Marines. During the months of the stop loss policy, the IRR reached a low of nearly 49,000. The Marine Corps' stop loss policy was implemented on 15 Jan 03 by MARADMIN 007/03 (TAB C), and prohibited active component and certain reserve component members from transfer to the IRR. The policy was terminated on 12 May 03 by MARDAMIN 228/03 (TAB D). Additionally administrative guidance for the removal of stop loss was published on 23 May 03 by MARADMIN 250/03 (TAB E).

4. The information below lists the number of members of the Marine Corps Reserve who spent less than 12 months in the IRR during fiscal years 2001 through 2008, categorized by the reason provided for assigning the members to the IRR. Our integrated pay and personnel system will not allow us to discern the total number of members who spent less than 12 months in the IRR. But, we do know how many members had spent less than 12 months in the IRR at the end of each fiscal year. Those data are provided as follows:

FY01 11,399
FY02 20,305
FY03 21,955
FY04 22,735
FY05 19,351
FY06 21,826
FY07 21,284
FY08 19,316

5. Marines are joined to the IRR for many different reasons as explained above. Each year approximately 16,000 to 18,000 Marines enter the IRR from the active component, comprising the majority of IRR joins.

6. When members of the Marine Corps Reserve are assigned to the IRR their eligibility for health care coverage under TRICARE is affected. Marines in the IRR no longer qualify for health care coverage under TRICARE. However, they may qualify for transitional health care benefits for 180 days under Transitional Assistance Management Program (TAMP). The four categories of eligibility for transitional health care benefits are: 1) members involuntarily separated from active duty and their eligible family members; 2) reserve component members separated from active duty after being called up and ordered in support of a contingency operation for an active duty period of more than 30 days and their family members; 3) Members separated from active duty after being involuntary retained in support of a contingency operation and their family members; and 4) Members separated from active duty following a voluntary agreement to stay on active duty for less than one year in support of a contingency mission and their family members.

7. The Marine Corps Reserve does not operate under a unit authorization document for the IRR. Because of this, we have no policies or procedures used to account for members of the Marine Corps Reserve who are excess to a unit's authorization document.

8. Officers who were selected for promotion on FY01 through FY08 promotion selection lists were promoted with their active component running mate per MCO P1400.31C (MARCORPROMMAN VOL I). Enlisted Marines selected for promotion on FY01 through FY08 promotion selection lists were promoted in accordance with MCO P1400.31D (MARCORPROMMAN VOL II).

9. Officers selected for command during FY01 through FY08 were selected per MCO 1300R.65, and subsequently assigned to the command selected.

10. In order to improve the policies and procedures used to assign and remove members of the IRR, recommend Marines who are released from the active component or the SMCR/IMA with a reenlistment code of RE-4 (not recommended for reenlistment) be discharged in lieu of being transferred to the IRR. Because these Marines are not recommended for reenlistment, they have no mobilization potential and should not be placed in the IRR.

Tab A: MARDAMIN 303/08 (Ready Reserve and Standby Reserve Officer Participation Requirements)
Tab B: Strength of the Marine Corps IRR FY01 – FY08
Tab C: MARADMIN 007/03 (Implementation of Stop Loss)
Tab D: MARADMIN 228/03 (Termination of Stop Loss)
Tab E: MARADMIN 250/03 (Admin Guidance for Stop Loss)

TAB A

READY RESERVE AND STANDBY RESERVE OFFICER PARTICIPATION REQUIREMENTS

Date Signed: 5/20/2008
MARADMIN Number: 303/08

R 200017Z MAY 08
MARADMIN 303/08
UNCLASSIFIED//
MSGID/GENADMIN/CMC WASHINGTON DC MRA RA//
SUBJ/READY RESERVE AND STANDBY RESERVE OFFICER PARTICIPATION REQUIREMENTS
REF/A/TITLE 10 U.S.C.//
REF/B/DODD 1235.13/20050716//
REF/C/SECNAVINST 1920.6C/20051215//
REF/D/MCO P1900.16F/20070606//
REF/E/MCO P1001R.1J/19990310//
NARR/REF A IS TITLE 10 U.S.C. REF B DIRECTS MANAGEMENT OF THE INDIVIDUAL I
RESERVE (IRR). REF C GOVERNS THE ADMINISTRATIVE SEPARATION OF OFFICERS. R
IS THE MARINE CORPS SEPARATION AND RETIREMENT MANUAL (MARCORSEPMAN). REF
THE MARINE CORPS RESERVE ADMINISTRATIVE MANAGEMENT MANUAL (MCRAMM).//
POC/M. A. WESTERBECK/MAJ/CMC RAP-21/-/TEL:(703) 784-9138/
EMAIL:MARGERY.WESTERBECK@USMC.MIL//
POC2/J. R. FENTON/MAJ/CMC MMSR-5/-/TEL:(703) 784-9306/
EMAIL: JASON.FENTON@USMC.MIL//
GENTEXT/REMARKS/1. PURPOSE. TO IMPLEMENT OFFICER CAREER FORCE CONTROLS T
REALIGN THE READY RESERVE AND STANDBY RESERVE OFFICER POPULATIONS WITHIN
DEPARTMENT OF DEFENSE (DOD) GUIDANCE AND ENHANCE MANAGEMENT OF THE RESERV
ACTIVE STATUS LIST (RASL).
2. BACKGROUND. CONTINUOUS SCREENING OF THE READY RESERVE AND STANDBY RE
ENSURES THE VIABILITY OF THESE POPULATIONS FOR MOBILIZATION. ADDITIONALL
REMOVING NON-PARTICIPATING OFFICERS FROM THESE POPULATIONS PROTECTS THE
INDIVIDUAL OFFICER FROM INADVERTENTLY REACHING CAREER SERVICE LIMITATIONS
ENSURES COMPETITIVENESS OF PROMOTION BOARDS. FURTHERMORE, REF B DIRECTS
DISCHARGE OF IRR OFFICERS WHO HAVE NOT TAKEN ACTION TO POSITIVELY REMAIN
IRR WITHIN TWO YEARS AFTER FULFILLMENT OF THEIR MILITARY SERVICE OBLIGATI
(MSO).
3. INFORMATION. READY RESERVE INCLUDES THE FOLLOWING RESERVE
CATEGORIES: SELECTED MARINE CORPS RESERVE (SMCR) UNITS, INDIVIDUAL
MOBILIZATION AUGMENTEE (IMA), ACTIVE RESERVE, AND INDIVIDUAL READY RESERV
(IRR). STANDBY RESERVE INCLUDES THE FOLLOWING RESERVE
CATEGORIES: ACTIVE STATUS LIST (ASL) AND INACTIVE STATUS LIST (ISL).
THE RASL INCLUDES ALL OFFICERS IN THE READY RESERVE AND ASL. IN ORDER TO
COMPLY WITH REFS A-E AND ENABLE IMPROVED MANAGEMENT OF THE RASL AND ISL,

FOLLOWING ACTIONS ARE EFFECTIVE IMMEDIATELY.
4. NOTIFICATION OF MSO. OFFICERS WITHIN TWO YEARS OF FULFILLING THEIR M
BE NOTIFIED IN WRITING BY CG, MOBCOM OF THEIR SERVICE OBLIGATION AND MINI
PARTICIPATION REQUIREMENTS FOR SATISFACTORY SERVICE AND RETIREMENT IN THE
RESERVE. THIS NOTIFICATION WILL ALSO INCLUDE POTENTIAL OPPORTUNITIES FOR
FURTHER ACTIVE DUTY SERVICE OR SELECTED RESERVE PARTICIPATION, ADVERTISE
MEANS TO MEET MINIMUM PARTICIPATION REQUIREMENTS, AND INFORM THE MEMBER O
RESIGNATION PROCESS.
5. TRANSFER TO THE ISL FOR FAILURE TO MEET PARTICIPATION REQUIREMENTS.
OFFICERS BEYOND THEIR MSO WHO DID NOT MEET MINIMUM PARTICIPATION REQUIREM
THE PREVIOUS ANNIVERSARY YEAR WILL BE NOTIFIED BY CG, MOBCOM VIA CERTIFIE
(RETURN RECEIPT) OF THEIR PENDING TRANSFER TO THE ISL IN ACCORDANCE WITH
THIS NOTIFICATION WILL ALSO INCLUDE POTENTIAL OPPORTUNITIES TO REMAIN WIT
READY RESERVE TO INCLUDE SELECTED RESERVE AFFILIATION, ACTIVE DUTY SERVIC
OTHER MEANS TO OBTAIN RESERVE RETIREMENT CREDIT POINTS, AS WELL AS THE PR
FOR REQUESTING A 27-POINT WAIVER OF THE MINIMUM PARTICIPATION REQUIREMENT
DUE TO COMPETITION AND LIMITED SELECTED RESERVE OPPORTUNITIES FOR CERTAIN
GRADES, THERE IS NO GUARANTEE THAT REQUESTS TO AFFILIATE WITH THE SELECTE
RESERVE OR RECEIVE ACTIVE DUTY ORDERS WILL BE APPROVED. OFFICERS THAT ARE
APPROVED FOR SELECTED RESERVE AFFILIATION, ACTIVE DUTY OF AT LEAST 12 DAY
OBTAIN 12 RESERVE RETIREMENT CREDITS FOR THE CURRENT ANNIVERSARY YEAR WIT
DAYS OF RECEIPT OF NOTIFICATION OF TRANSFER TO THE ISL WILL REMAIN IN THE
RESERVE.
C. 27-POINT WAIVERS FOR FAILURE TO OBTAIN THE MINIMUM RETIREMENT CREDIT
DURING THE PREVIOUS ANNIVERSARY YEAR WILL BE HIGHLY SCRUTINIZED FOR RESER
OFFICERS OF ALL GRADES. REQUESTS MAY BE SUBMITTED TO CMC (MMSR-5) VIA CG
MOBCOM FOR APPROVAL/DISAPPROVAL IN COORDINATION WITH CMC (RAP). REQUESTS
CONTAIN SUBSTANTIAL JUSTIFICATION AS TO WHY MINIMUM POINTS COULD NOT BE O
AND THE POTENTIAL TO MEET MINIMUM PARTICIPATION REQUIREMENTS DURING THE C
ANNIVERSARY YEAR. INDIVIDUALS RETAINED UNDER PARA 5B NEED NOT SUBMIT A W
D. OFFICERS WHO DO NOT DESIRE TO BE TRANSFERRED TO THE ISL MAY REQUEST T
RESIGN THEIR COMMISSION IN LIEU OF SUCH TRANSFER.
E. RESERVE SANCTUARY. IN ACCORDANCE WITH SECTION 12646 OF REF A, OFFICE
ARE WITHIN TWO YEARS OF RETIREMENT ELIGIBILITY MAY NOT BE DISCHARGED OR
TRANSFERRED TO THE ISL FOR FAILURE TO MEET MINIMUM PARTICIPATION REQUIREM
FOR A PERIOD OF THREE YEARS UNLESS RETIREMENT ELIGIBILITY IS EARLIER OBTA
OFFICERS WHO ARE WITHIN ONE YEAR OF RETIREMENT ELIGIBILITY MAY NOT BE DIS
OR TRANSFERRED TO THE ISL FOR FAILURE TO MEET MINIMUM PARTICIPATION REQUI
FOR A PERIOD OF TWO YEARS UNLESS RETIREMENT ELIGIBILITY IS EARLIER OBTAIN
(1) IAW PARA 5A, CG, MOBCOM WILL NOTIFY OFFICERS WITHIN TWO YEARS OF RET
ELIGIBILITY, AND ARE SUBJECT TO RESERVE SANCTUARY BY REASON OF FAILURE TO
MINIMUM PARTICIPATION REQUIREMENTS, VIA CERTIFIED MAIL (RETURN RECEIPT) O
STATUS
AND PROJECTED DATE OF TRANSFER TO THE ISL.
(2) UPON MEETING MINIMUM PARTICIPATION REQUIREMENTS, OFFICERS WILL BE RE
FROM SANCTUARY STATUS UNTIL AT WHICH TIME THEY AGAIN FAIL TO MEET MINIMUM
PARTICIPATION REQUIREMENTS OR ARE SUBJECT TO CAREER SERVICE LIMITATIONS P
OBTAINING RETIREMENT ELIGIBILITY.

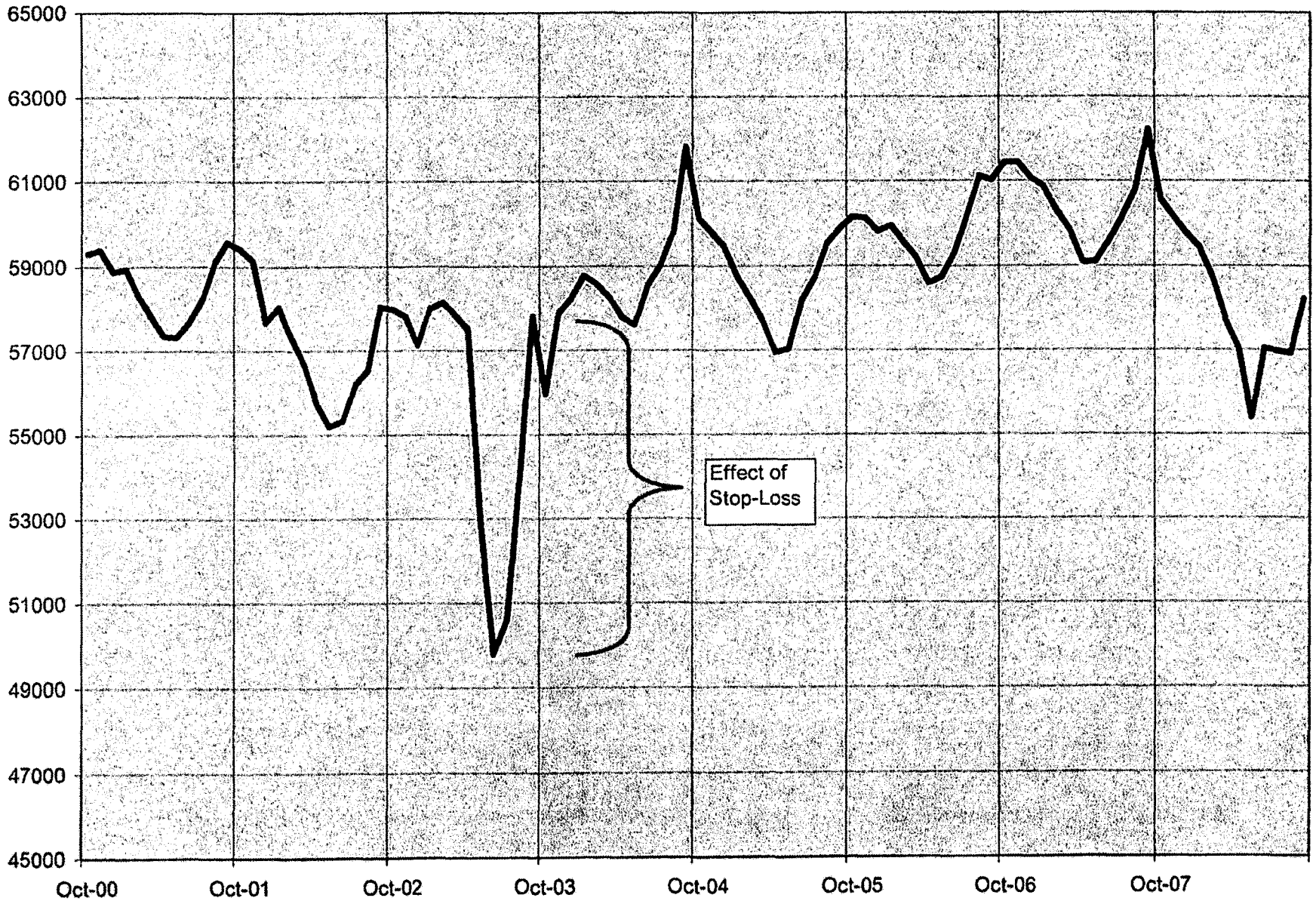
(3) 27-POINT WAIVERS ARE NOT APPLICABLE TO MARINES IN SANCTUARY.
6. RETIREMENT ELIGIBILITY. PARA 5 DOES NOT APPLY TO INDIVIDUALS WHO HAVI OBTAINED RETIREMENT ELIGIBILITY. IN ACCORDANCE WITH REFS A AND C - E, OF IN THIS CATEGORY ARE MORE HIGHLY SCRUTINIZED AND MUST OBTAIN 50 POINTS PE ANNIVERSARY YEAR TO REMAIN IN AN ACTIVE STATUS IN ACCORDANCE WITH REF E.
7. DISCHARGE FROM THE ISL.
A. IN ACCORDANCE WITH REF C, OFFICERS WHO REMAIN IN THE ISL FOR GREATER ONE YEAR WILL BE NOTIFIED BY CG, MOBCOM VIA CERTIFIED MAIL (RETURN RECEIP THEIR PENDING DISCHARGE FROM THE MARINE CORPS RESERVE. THIS NOTIFICATION ALSO INCLUDE POTENTIAL OPPORTUNITIES TO TRANSFER TO THE READY RESERVE TO SELECTED RESERVE AFFILIATION AND ACTIVE DUTY SERVICE. OFFICERS WHO DO NO DESIRE TO PARTICIPATE OR BE INVOLUNTARILY DISCHARGED FROM THE MARINE CORP ENCOURAGED TO REQUEST RESIGNATION OR TRANSFER TO THE
RETIRED RESERVE, IF ELIGIBLE.
B. DUE TO COMPETITION AND LIMITED SELECTED RESERVE OPPORTUNITIES FOR CER GRADES, THERE IS NO GUARANTEE THAT REQUESTS TO AFFILIATE WITH THE SELECTE RESERVE OR RECEIVE ACTIVE DUTY ORDERS WILL BE APPROVED.
C. OFFICERS WHO DESIRE TO REMAIN IN THE ISL ARE REQUIRED TO SUBMIT THEIR REQUEST TO CMC(MMSR-5) IN COORDINATION WITH CMC(RAP) VIA CG, MOBCOM WITHI DAYS OF NOTIFICATION. IF AN OFFICER'S REQUEST TO REMAIN IN THE ISL IS DE CMC(MMSR-5), THEN THE OFFICER WILL BE RETAINED IN THE ISL UNTIL THE CONVE THE NEXT MOBILIZATION POTENTIAL SCREENING BOARD UNLESS EARLIER DISCHARGED SECRETARY OF THE NAVY IN ACCORDANCE WITH REF C.
D. OFFICERS WHO DO NOT RESPOND IN WRITING TO THEIR PENDING DISCHARGE WIT DAYS OF RECEIPT OF NOTIFICATION MAY BE HONORABLY DISCHARGED FROM THE MARI CORPS RESERVE. IF QUALIFIED, OFFICERS MAY BE TRANSFERRED TO THE RETIRED RESERVE.
E. RETIREMENT ELIGIBLE OFFICERS WHO HAVE PREVIOUSLY BEEN APPROVED FOR A TIME 50 POINT WAIVER IN THEIR CAREER WILL NOT BE TRANSFERRED TO THE RASL.
8. MOBILIZATION POTENTIAL SCREENING BOARD (MPSB). MOBILIZATION COMMAND CONDUCT AN MPSB EVERY FIVE YEARS, UNLESS SOONER DIRECTED BY CMC(M&RA). A RESULT OF THESE BOARDS, OFFICERS MAY BE DISCHARGED, RETIRED, TRANSFERRED INACTIVE STATUS LIST, OR OTHERWISE DESIGNATED AS DIRECTED BY THE SECRETAR THE NAVY IN THE PRECEPT. THE TARGET POPULATION TO BE SCREENED WILL BE IDENTIFIED IN THE PRECEPT SIGNED BY THE SECRETARY OF THE NAVY AND WILL IN AT A MINIMUM, THOSE OFFICERS INDICATED IN PARA 6C OF THIS MARADMIN.
9. IMPLEMENTATION OF THE ABOVE POLICIES AND PROCEDURES SHALL COMMENCE IMMEDIATELY.
A. NLT 1 JULY, MOBCOM WILL NOTIFY ALL OFFICERS WITHIN ONE TO TWO YEARS O REACHING THEIR MSO IN ACCORDANCE WITH PARA 4. THEREAFTER, NOTIFICATION O OFFICERS WILL COINCIDE WITH THE DATE TWO YEARS PRIOR TO THEIR MSO.
B. NLT 1 JULY, MOBCOM WILL NOTIFY ALL AFFECTED OFFICERS BEYOND THEIR MSO HAVE FAILED TO MEET MINIMUM PARTICIPATION REQUIREMENTS REGARDLESS OF ANNI DATE IAW PARA 5. THEREAFTER, NOTIFICATION WILL OCCUR WITHIN 30 DAYS OF T ANNIVERSARY DATE.
B. NLT 1 NOVEMBER, MOBCOM WILL NOTIFY ALL OFFICERS ON THE ISL BEYOND THE YEAR ISL ANNIVERSARY. THEREAFTER, NOTIFICATION WILL OCCUR WITHIN 30 DAYS REACHING THE ONE-YEAR ISL ANNIVERSARY.

10. OFFICERS WHO HAVE QUESTIONS PERTAINING TO THIS MESSAGE MAY CONTACT MA
A. WESTERBECK 703-784-9138.
11. PROCEDURAL UPDATES WITHIN THIS MARADMIN WILL BE INCLUDED IN THE NEXT
REVISION OF REFS D - E.
12. THIS POLICY IS APPLICABLE TO THE MARINE CORPS RESERVE.
13. RELEASE AUTHORIZED BY LTGEN COLEMAN, DEPUTY COMMANDANT FOR MANPOWER A
RESERVE AFFAIRS.//

Official U.S. Marine Corps Web Site RSS Feeds Privacy Policy External Links FOIA Sitemap FAQs Contact Us

TAB B

Strength of the Marine Corps IRR
FY01 - FY08



Strength of the Marine Corps IRR by month
FY01-FY08

Date	Strength
31-Oct-00	59294
30-Nov-00	59375
31-Dec-00	58870
31-Jan-01	58931
28-Feb-01	58292
31-Mar-01	57821
30-Apr-01	57346
31-May-01	57328
30-Jun-01	57673
31-Jul-01	58209
31-Aug-01	59064
30-Sep-01	59567
31-Oct-01	59419
30-Nov-01	59144
31-Dec-01	57662
31-Jan-02	58022
28-Feb-02	57302
31-Mar-02	56677
30-Apr-02	55750
31-May-02	55189
30-Jun-02	55323
31-Jul-02	56179
31-Aug-02	56518
30-Sep-02	58039
31-Oct-02	57982
30-Nov-02	57810
31-Dec-02	57117
31-Jan-03	57995
28-Feb-03	58131
31-Mar-03	57854
30-Apr-03	57512
31-May-03	52838
30-Jun-03	49787
31-Jul-03	50616
31-Aug-03	54070
30-Sep-03	57822
31-Oct-03	55966
30-Nov-03	57883
31-Dec-03	58230
31-Jan-04	58771
29-Feb-04	58573
31-Mar-04	58236
30-Apr-04	57794

Strength of the Marine Corps IRR by month
FY01-FY08

Date	Strength
31-May-04	57605
30-Jun-04	58521
31-Jul-04	58983
31-Aug-04	59810
30-Sep-04	61799
31-Oct-04	60122
30-Nov-04	59798
31-Dec-04	59453
31-Jan-05	58739
28-Feb-05	58238
31-Mar-05	57701
30-Apr-05	56942
31-May-05	57025
30-Jun-05	58149
31-Jul-05	58684
31-Aug-05	59496
30-Sep-05	59878
31-Oct-05	60152
30-Nov-05	60142
31-Dec-05	59810
31-Jan-06	59949
28-Feb-06	59568
31-Mar-06	59204
30-Apr-06	58590
31-May-06	58720
30-Jun-06	59285
31-Jul-06	60207
31-Aug-06	61124
30-Sep-06	61029
31-Oct-06	61443
30-Nov-06	61439
31-Dec-06	61087
31-Jan-07	60888
28-Feb-07	60306
31-Mar-07	59840
30-Apr-07	59089
31-May-07	59098
30-Jun-07	59558
31-Jul-07	60138
31-Aug-07	60776
30-Sep-07	62228
31-Oct-07	60564
30-Nov-07	60132

Strength of the Marine Corps IRR by month
FY01-FY08

Date	Strength
31-Dec-07	59750
31-Jan-08	59450
29-Feb-08	58742
31-Mar-08	57726
30-Apr-08	57044
31-May-08	55384
30-Jun-08	57031
31-Jul-08	56971
31-Aug-08	56901
30-Sep-08	58218

TAB C

MCBUL 1900. MARINE CORPS STOP MOVE AND STOP LOSS POLICY

Date Signed: 1/7/2003
MARADMIN Number: 007/03

P 071500Z JAN 03
FM CMC WASHINGTON DC(n)
TO ML MARADMIN(n)
MARADMIN
BT
UNCLAS
MARADMIN 007/03
MSGID/GENADMIN/CMC WASHINGTON DC/MPP-20//
SUBJ/MCBUL 1900. MARINE CORPS STOP MOVE AND STOP LOSS POLICY//
REF/A/DOC/SECNAV MEMO/07JAN2003//
REF/B/MSG/CMC/01NOV2001/MPP-20/-/NOTAL//
REF/C/MSG/CMC/07JAN2002/MPP-20//
REF/D/MSG/CMC/13SEP2002/MPP-20//
REF/E/MSG/CMC/271100Z/PPO/-/NOTAL//
REF/F/DOC/CMC/30MAY2001//
REF/G/DOC/CMC/07JUN2001//
NARR/REFERENCE A IS SECNAV APPROVAL FOR LIMITED SUSPENSION OF LAW AND POLICY RELATING TO RETIREMENT AND SEPARATION FOR ESSENTIAL PERSONNEL.
REFERENCE B IS STOP LOSS MESSAGE IN SUPPORT OF 4TH MEB (AT).
REFERENCE C IS MARADMIN 012/02 (STOP LOSS POLICY FOR PERSONNEL WITHIN THE C-130 COMMUNITY).
REFERENCE D IS MARADMIN 491/02 (STOP LOSS POLICY FOR FORCE PROTECTION PURPOSES).
REFERENCE E PROVIDES ROTATION GUIDANCE FOR UNITS IN THE UNIT DEPLOYMENT PROGRAM.
REFERENCE F IS MCO P1900.16F, MARINE CORPS SEPARATIONS MANUAL (MARCORSEPMAN).
REFERENCE G IS MCO P1080.40C, THE MARINE CORPS TOTAL FORCE SYSTEM PERSONNEL REPORTING INSTRUCTIONS MANUAL (MCTFSPRIM).//
GENTEXT/REMARKS/-//
RMKS/1. BACKGROUND
A. AS OUTLINED IN REFERENCE A, THE SECRETARY OF THE NAVY HAS AUTHORIZED THE USE OF STOP LOSS FOR ALL MARINE CORPS PERSONNEL (ACTIVE AND RESERVE COMPONENTS) EFFECTIVE 15 JAN 2003.
B. REFERENCE B PROVIDED THE FIRST STOP LOSS POLICY AND WAS LIMITED TO MARINES IN SUPPORT OF THE 4TH MEB(AT). REFERENCE

C PROVIDED THE SECOND ITERATION TO THE STOP LOSS POLICY AND STABILIZED STAFFING FOR THE C-130 COMMUNITY. REFERENCE D PROVIDED THE THIRD ITERATION OF STOP LOSS AND FOCUSED ON MEETING FORCE PROTECTION REQUIREMENTS.
C. REFERENCE E PROVIDES INFORMATION ON CHANGES TO ROTATION POLICY FOR UNITS IN THE UNIT DEPLOYMENT PROGRAM. THE POLICY CONTAINEDHEREIN WILL PROVIDE ADDITIONAL GUIDANCE ON PERSONNEL ISSUES ASSOCIATED WITH THE CHANGE IN ROTATION POLICY.
D. THIS POLICY ADDRESSES TWO ISSUES. FIRST, IT PROVIDES GUIDANCE FOR THOSE MARINES WHO ARE EXPECTING TO CHANGE DUTY STATIONS IN THE NEAR FUTURE. THIS IS COMMONLY REFERRED TO AS STOP MOVE. SECOND, THIS POLICY INVOLUNTARILY EXTENDS THE DATE OF SEPARATION (EAS, EOS, ECC, RESECC, AND MANDATORY PARTICIPATION DRILL STOP DATE) FOR ALL MARINE CORPS PERSONNEL (ACTIVE AND RESERVE) UNDER THE AUTHORITY OF SECTIONS 123 AND 12305, TITLE 10 UNITED STATES CODE (USC). THIS IS COMMONLY REFERRED TO AS STOP LOSS.
E. THIS POLICY IS DESIGNED TO ASSIST IN MEETING MANPOWER REQUIREMENTS FOR FUTURE OPERATIONS, AND WILL, THEREFORE, EVOLVE TO REMAIN RELEVANT TO FUTURE DEVELOPMENTS IN MISSION REQUIREMENTS AND OUR INVOLVEMENT IN CURRENT OPERATIONS.
2. ACTION
A. STOP MOVE. EFFECTIVE IMMEDIATELY, UNLESS OTHERWISE DIRECTED BY CMC (CODE MM/RAM), ALL ORDERS FOR MARINES WITH A DETACH DATE OF 15FEB 03 OR LATER WILL BE HELD IN ABEYANCE. HOWEVER, MARINES IN THE INITIAL ACCESSION TRAINING PIPELINE (I.E., RECRUIT TRAINING,MOS PRODUCING SCHOOL, ETC.) WILL EXECUTE PCS ORDERS AS PUBLISHED. ADDITIONALLY, ENLISTED MARINES WITH ORDERS TO PRIMARY MOS CAREER PROGRESSION SCHOOLS OR MARINES APPROVED FOR LATERAL MOVE IN THE FOLLOWING CRITICAL MOS(S) (02XX, 2336, 26XX, 2823, 2834, 4429, AND 6276) WILL EXECUTE ORDERS AS PUBLISHED. MARINES IN RECEIPT OF PCS ORDERS TO AND FROM THE FOLLOWING DUTY ASSIGNMENTS WILL EXECUTE ORDERS AS PUBLISHED:
(1) JOINT DUTY
(2) RECRUITING DUTY
(3) DRILL INSTRUCTOR DUTY
(4) MARINE SECURITY GUARD DUTY
(5) MARINE CORPS SECURITY FORCES DUTY
(6) MARINE COMBAT INSTRUCTOR DUTY
(7) DUTY AT NROTC UNITS
(8) WARRANT OFFICER BASIC COURSE (WOBC)
(9) SPECIAL EDUCATION PROGRAM
(10) ALL COMMISSIONING PROGRAMS TO INCLUDE THE BOOST PROGRAM
B. STOP LOSS
(1) REFERENCES B, C, AND D ARE HEREBY CANCELLED. MARINES INVOLUNTARILY EXTENDED UNDER THE POLICY CONTAINED IN THESE

REFERENCES WILL CONTINUE TO BE RETAINED IN THEIR CURRENT STATUS IN ACCORDANCE WITH THE PROVISIONS OF THE POLICY OUTLINED BELOW.
(2) UPON RECEIPT OF THIS MARADMIN, COMMANDERS WILL APPLY THE PROVISIONS CONTAINED HEREIN TO MARINE CORPS PERSONNEL WHO HAVE AN EAS, EOS, ECC, RESECC, AND MANDATORY PARTICIPATION DRILL STOP DATE OF 15 JAN 03 AND LATER.
(3) THE FIRST GENERAL OFFICER IN THE MARINE'S CHAIN OF COMMAND WILL DETERMINE IF IT IS IN THE BEST INTEREST OF THE SERVICE TO ALLOW THE MARINE TO SEPARATE. THE DECISION TO APPROVE SEPARATION MUST BE CONSIDERED WITH THE UNDERSTANDING THAT CMC (MM/RAM) MAY NOT PROVIDE A REPLACEMENT GIVEN CURRENT PERSONNEL CONSTRAINTS, STOP MOVEMENT, AND POLICIES UNDER CONSIDERATION.
(4) COMMANDERS WILL CONTINUE TO SEPARATE AND RETIRE, PER REFERENCE F, THOSE MARINES WHO ARE DENIED FURTHER SERVICE DUE TO SERVICE LIMITS, MANDATORY RETIREMENT, OR REMOVAL DATES. ADDITIONALLY, COMMANDERS WILL CONTINUE TO PROCESS AND SEPARATE MARINES FOR REASONSOF HARDSHIP, PHYSICAL DISABILITY, INVOLUNTARY ADMINISTRATIVE SEPARATION,OR VIOLATION OF THE UNIFORM CODE OF MILITARY JUSTICE (UCMJ), AS APPROPRIATE. ANY REQUEST TO PROVIDE CONTINUED SERVICE FOR PERSONNEL IN THE CATEGORIES LISTED ABOVE SHALL BE FORWARDED EXPEDITIOUSLY TO CMC (MMSR) FOR REGULAR COMPONENT MARINES AND COMMARFORRES FOR RESERVE COMPONENT MARINES.
(5) RETIREMENTS
(A) COMMANDERS WILL NOT STOP LOSS MARINES WHO HAVE AN EFFECTIVE DATE OF RETIREMENT OF 1 APR 03, OR EARLIER.
(B) COMMANDERS DESIRING TO EITHER CANCEL OR DELAY A MARINE'S APPROVED VOLUNTARY RETIREMENT WITH AN EFFECTIVE DATE AFTER 1 APR 03 MUST PROVIDE JUSTIFICATION TO THIS HEADQUARTERS (MMSR). THIS JUSTIFICATION MUST INDICATE WHETHER THE MARINE AGREES TO CANCEL OR DELAY THE RETIREMENT. IF THE MARINE DOES NOT DESIRE TO CANCEL OR DELAY THE EFFECTIVE DATE OF RETIREMENT, THEN JUSTIFICATION MUST INCLUDE A CONCISE DESCRIPTION OF THE IMPACTS UPON THE MARINE IF THE RETIREMENT IS INVOLUNTARILY CANCELED OR DELAYED.
(C) COMMANDERS WILL CONTINUE TO PROCESS, PER REFERENCE F, RETIREMENT REQUESTS. REQUESTS REQUIRE A FAVORABLE ENDORSEMENT BY THE FIRST GENERAL OFFICER IN THE MARINE'S CHAIN OF COMMAND FOR CMC (MMSR) TO PROCESS. FINAL APPROVAL FOR RETIREMENTS WILL RESIDE WITHIN HQMC (MM) BASED UPON CURRENT NEEDS OF THE CORPS. THOSE REQUESTS SUBMITTED THROUGH MCTFS OR VIA NAVAL MESSAGE WILL IMPLY THAT THIS FAVORABLE ENDORSEMENT HAS BEEN GRANTED.
(D) THIS HEADQUARTERS WILL PROCESS ALL PREVIOUSLY SUBMITTED RETIREMENT REQUESTS IAW REFERENCE F. COMMANDERS DESIRING TO CHANGE PREVIOUSLY SUBMITTED RETIREMENT REQUESTS WILL PROVIDE JUSTIFICATION AS REQUIRED IN PAR 2B(5)(B) ABOVE.
(6) COMMANDERS ARE NOT AUTHORIZED TO RECALL TO DUTY MARINES WHO HAVE DEPARTED ON PERMISSIVE TAD AND/OR TERMINAL LEAVE IN CONJUNCTION WITH THEIR SEPARATION OR RETIREMENT. TERMINAL LEAVE

AND PTAD HAS BECOME AN EXPECTED PART OF SEPARATION AND RETIREMENT. HOWEVER, PERMISSIVE TAD AND TERMINAL LEAVE ARE NOT ENTITLEMENTS. THEREFORE, APPROVAL IS SUBJECT TO COMMANDERS' DISCRETION WITH REGARDS TO THE NEEDS AND REQUIREMENTS OF THE UNIT AND SERVICE.
(7) COMMANDERS WILL RELEASE MARINES AFFECTED BY THIS POLICY AND MARINES PREVIOUSLY INVOLUNTARILY EXTENDED UNDER REFERENCES B, C, AND D NO LATER THAN 12-MONTHS BEYOND THE MARINES ORIGINAL SEPARATION OR RETIREMENT DATE. OUR CURRENT INTENT IS TO INVOLUNTARILY EXTEND MARINES FOR A MAXIMUM OF 12 MONTHS.
3. ADMINISTRATIVE INSTRUCTIONS
A. REPORTING UNITS WILL REPORT INVOLUNTARY EXTENSIONS VIA NAVAL MESSAGE (FOR OFFICERS) AND UNIT DIARY (FOR ENLISTED).
B. FOR OFFICERS INVOLUNTARILY EXTENDED UNDER THIS POLICY WHO HAVE SUBMITTED A REQUEST TO RESIGN AND HAVE RECEIVED AN APPROVED SEPARATION DATE AFTER 15 JAN 03, COMMANDERS WILL SUBMIT A NAVAL MESSAGE TO CMC (MMSR-3) REQUESTING THESE OFFICERS BE INVOLUNTARILY EXTENDED. UPON RECEIPT OF THIS MESSAGE, CMC (MMSR-3) WILL RUN A UNIT DIARY ENTRY TO REMOVE THE END OF CURRENT CONTRACT (ECC) DATE. COMMANDERS SHOULD CLOSELY MONITOR THEIR FEEDBACK REPORTS FOR THIS ENTRY.
C. FOR ENLISTED MARINES INVOLUNTARILY EXTENDED UNDER THIS POLICY, REPORTING UNITS WILL RUN THE ENTRIES BELOW CONCURRENTLY. THIS ACTION MUST OCCUR WITHIN 90-DAYS PRIOR TO THE MARINE'S EAS/ECC. COMMANDS WILL CONTACT THE APPROPRIATE SUPPORTING MISSO TO HANDLE THOSE CASES WHERE A MARINE'S EAS/ECC IS UNDER 30-DAYS.
(1) TTC 081 000 (EAS COFGI) PER PAR 30304.6 OF REFERENCE (G) OR TTC 081 001 FOR RESERVISTS PER PAR 30305.1 OF REFERENCE (G).
(2) TTC 119 000 (INVOL EXTENL 12 MOS)
(3) REPORTING TTC 119 000 WILL AUTOMATICALLY UPDATE THE MEMBER STRENGTH CATEGORY CODE TO "O" (OSCAR), WHICH HAS BEEN CHANGED TO REFLECT "STOP/LOSS." REPORTING UNITS ARE DIRECTED NOT TO REPORT STRENGTH CATEGORY CODE "O" (OSCAR) AS A SEPARATE TRANSACTION. D. LOCAL COMMANDERS WILL RE-ISSUE MILITARY IDENTIFICATION CARDS FOR MARINES AND THEIR FAMILIES WITH AN EXPIRATION DATE 12-MONTHS BEYOND THE ORIGINAL EXPIRATION DATE FOR THOSE AFFECTED BY THIS POLICY. FOR THOSE MARINES RELEASED PRIOR TO THIS DATE, LOCAL COMMANDERS WILL FOLLOW ID COLLECTION POLICIES FOR NORMAL EARLY RELEASE AS OUTLINED IN REFERENCE (G).
4. RESERVE APPLICABILITY
A. THIS BULLETIN IS APPLICABLE TO THE MARINE CORPS RESERVE AND THOSE FMCR PERSONNEL CURRENTLY ON ACTIVE DUTY. THIS AUTHORITY CAN BE USED TO INVOLUNTARILY EXTEND IMA, SMCR, AND IRR MEMBERS ON MOBILIZATION ORDERS. ADDITIONALLY, ALL INTERSERVICE TRANSFERS OF READY RESERVES ARE HEREBY SUSPENDED UNTIL FURTHER NOTICE.
B. IN THE CASE OF IMA AND IRR MEMBERS BEING EXTENDED, GAINING FORCE COMMANDS MUST REQUEST ORDERS MODIFICATIONS FROM THE

COMMANDING GENERAL, MARINE CORPS RESERVE SUPPORT COMMAND, WHO WILL APPROPRIATELY ADJUST EAS/ECC DATES. MOBILIZED SMCR MEMBERS MAY BE SELECTIVELY EXTENDED ON THE AUTHORITY OF COMMARFORRES. MOBILIZED SMCR,IMA, AND IRR MEMBERS MAY NOT BE EXTENDED BEYOND THE COMPLETION OF 24-CUMULATIVE MONTHS OF ACTIVATED SERVICE.
C. STOP LOSS EXTENDS THE MANDATORY DRILL PARTICIPATION STOP DATE OF ALL OBLIGOR RESERVISTS. NON-OBLIGOR RESERVISTS WHO REQUEST TRANSFER OR RESIGNATION MAY BE EXTENDED IN A DRILLING STATUS FOR UP TO 12-MONTHS BEYOND THEIR REQUESTED TRANSFER/RESIGNATION DATES.
D. THIS AUTHORITY PROHIBITS ALL SMCR AND IMA MEMBERS FROM VOLUNTARILY TRANSFERRING TO THE IRR (OBLIGORS AND NON-OBLIGORS) AND REQUIRES THEM TO ATTEND IDT AND ANNUAL TRAINING AS SCHEDULED. MEMBERS ATTAINING THEIR MANDATORY DRILL PARTICIPATION (MDP) STOP DATE WILL BE RETAINED IN A DRILLING STATUS.
E. THIS AUTHORITY IS NOT MEANT TO PROHIBIT RESERVE ACCESSIONS TO THE AR PROGRAM OR THE ACTIVE COMPONENT, OR TRANSFER MEMBERS FROM THE IRR TO THE SMCR. ADDITIONALLY, THIS AUTHORITY DOES NOT PROHIBIT INTER-UNIT TRANSFERS OF SMCR MEMBERS, ALTHOUGH ALL REQUESTS FOR SMCR INTER-UNIT TRANSFERS MUST BE APPROVED BY COMMARFORRES.
5. POC FOR POLICY QUESTIONS IS MAJOR BAUER, DSN: 278-9387, POC FOR SEPARATION QUESTIONS IS MAJOR RICE, DSN: 278-9315, COMM: (703) 784-9315. COMM: (703) 784-9361 OR 9365. POC FOR RESERVE ISSUES IS MAJOR MACE, DSN: 278-9136, COMM:(703) 784-9136.
6. CANCELLATION DATE 31 JAN 2004.//

Official U.S. Marine Corps Web Site RSS Feeds Privacy Policy External Links FOIA Sitemap FAQs Contact Us

TAB D

TERMINATION OF STOP LOSS AND STOP MOVE

Date Signed: 5/12/2003
MARADMIN Number: 228/03

R 121500Z MAY 03
FM CMC WASHINGTON DC(uc)
TO AL MARADMIN(uc)
MARADMIN
BT
UNCLASSIFIED
MARADMIN 228/03
MSGID/GENADMIN/CMC WASHINGTON DC/MM//
SUBJ/TERMINATION OF STOP LOSS AND STOP MOVE//
REF/A/MSG/CMC MPP 20/071500ZJAN2003/-//
REF/B/MSG/CMC RAP/011600ZAPR2003/-//
REF/C/MSG/CMC MP/201020ZMAR2003/-//
REF/D/MSG/CMC MMEA/120730ZMAR2003/-//
REF/E/MSG/CMC MMOA-3/140729ZMAR2003/-//
REF/F/ILS RESULTS/MMOA WEBSITE/-//
REF/G/MSG/CMC MM/160741ZJAN2003/-//
REF/H/CLS TYPE II RESULTS/MMOA WEBSITE/-//
REF/I/MSG/CMC MMOA/300801ZAUG2002/-//
REF/J/MSG/CMC MMOA-3/300800ZAUG2002/-//
REF/K/MSG/CMC MMOA-5/270729ZMAR2003/-//
REF/L/MSG/CMC MMOA-5/311215ZOCT2002/-//
REF/M/MSG/CMC MMOA-3/111430ZOCT2002/-//
NARR/REF A IS MARINE CORPS STOP MOVE AND STOP LOSS POLICY. REF B IS POLICY FOR APPLYING STOP LOSS TO MEMBERS OF THE MARINE CORPS RESERVE. REF C IS MARINE CORPS INDIVIDUAL AUGMENTATION (IA) STABILIZATION POLICY. REF D IS IMPLEMENTATION OF STOP MOVE WITHIN SPECIAL DUTY ASSIGNMENTS (SDA) COMMANDS. REF E IS MODIFICATION TO ACADEMIC YEAR 2003-2004 (AY03-04) TOP LEVEL SCHOOL (TLS) SELECTIONS. REF F IS INTERMEDIATE LEVEL SCHOOL RESULTS AS POSTED ON MMOA HOME PAGE. REF G IS MCBUL 1560 CAREER LEVEL SCHOOL (CLS) TYPE I (EWS) SELECTIONS. REF H IS CAREER LEVEL SCHOOL TYPE II RESULTS AS POSTED ON THE CMC (MMOA) HOME PAGE. REF I IS COLONEL COMMAND SCREENING BOARD RESULTS. REF J IS LIEUTENANT COLONEL COMMAND SCREENING BOARD RESULTS. REF K IS MCBUL 1520 FY03 SPECIAL EDUCATION PROGRAM (SEP) SELECTION BOARD RESULTS. REF L IS MCBUL 1520 FY03 SPECIAL EDUCATION PROGRAM (SEP) SELECTION BOARD RESULTS. REF M IS RECRUITING STATION COMMANDING OFFICER SLATE FOR FY03.//
GENTEXT/REMARKS/1. THIS MARADMIN ANNOUNCES THE TERMINATION OF STOP LOSS AND STOP MOVE, AND PROVIDES CLARIFICATION FOR SPECIFIC

SITUATIONS.
2. COMMANDANT'S INTENT. THE INTENT OF THIS POLICY CHANGE IS TO TERMINATE STOP LOSS AND STOP MOVE AS TOOLS FOR MEETING OPERATIONAL REQUIREMENTS AS SOON AS PRACTICAL.
3. STOP LOSS.

A. THE MARINE CORPS-WIDE STOP LOSS POLICY ESTABLISHED IN REF A WILL BE PHASED OUT AND TERMINATED FOR ACTIVE DUTY AND RESERVE COMPONENT MARINES IN THE MANNER DIRECTED BELOW. THIS ACTION MAY REQUIRE LOCAL COMMANDERS TO CONDUCT UNIT-TO-UNIT REASSIGNMENT OF INDIVIDUAL MARINES IN ORDER TO ENSURE THAT THE END OF CURRENT CONTRACT (ECC) OF ASSIGNED MARINES IS SYNCHRONIZED WITH PLANNED DEPLOYMENT SCHEDULES.

B. INSTRUCTIONS FOR REMOVING ACTIVE COMPONENT MARINES FROM STOP LOSS ARE CONTAINED IN PARAGRAPH 3E. INSTRUCTIONS FOR REMOVING RESERVE COMPONENT MARINES FROM STOP LOSS ARE CONTAINED ONLY IN PARAGRAPH 3F, UNLESS SPECIFIED ELSEWHERE.

C. DEFINITIONS.

(1) PLANNED SEPARATION DATE. PLANNED SEPARATION DATE IS DEFINED AS A MARINE'S ORIGINAL END OF ACTIVE SERVICE (EAS), ECC, RESERVE END OF CURRENT CONTRACT (RECC) OR ORIGINALLY PLANNED RESIGNATION DATE.

(2) FORWARD DEPLOYED. UNITS ARE FORWARD DEPLOYED IF THE UNIT IS TEMPORARILY DEPLOYED FROM ITS PERMANENT CONUS AND HAWAII LOCATION. EXAMPLES INCLUDE FORCES ASSIGNED TO MARCENT, PARTICIPANTS IN THE UNIT DEPLOYMENT PROGRAM (UDP) AND MARINE EXPEDITIONARY UNITS (MEU).

(3) FORWARD STATIONED. UNITS ARE FORWARD STATIONED IF THE UNIT IS PERMANENTLY LOCATED OUTSIDE OF CONUS AND HAWAII. EXAMPLES OF THESE UNITS INCLUDE 3RD FSSG; H&S BN, 3RD MARDIV; MCAS, IWAKUNI; AND CO A, MSG BN. FORWARD STATIONED UNITS ARE NOT CONSIDERED FORWARD DEPLOYED.

D. REMOVAL OF MARINES FROM STOP LOSS IS DIRECTLY RELATED TO THE CURRENT LOCATION OF THE MARINE AND THE UNIT. THE FOLLOWING GUIDANCE IS PROVIDED:

(1) FORCES ASSIGNED TO OR ATTACHED TO MARCENT. MARINES ASSIGNED TO OR ATTACHED TO MARCENT WHO HAVE A PLANNED SEPARATION DATE ON OR PRIOR TO 30 SEP 03 MUST BE RETURNED TO THEIR PERMANENT CONUS (TO INCLUDE HAWAII) DUTY STATION NO LATER THAN 15 JUNE 03. COMMANDERS WILL ESTABLISH SEPARATION DATES FOR THESE MARINES AS OUTLINED BELOW. MARINES ASSIGNED OR ATTACHED TO MARCENT WITH A PLANNED SEPARATION DATE AFTER 30 SEP 03 MUST BE RETURNED TO THEIR PERMANENT CONUS (TO INCLUDE HAWAII) DUTY STATION NO LATER THAN 90 DAYS BEFORE THEIR PLANNED SEPARATION DATE. COMMANDERS OF THESE UNITS ARE NO LONGER AUTHORIZED TO REPORT STOP LOSS IAW REF A.

(2) UNITS CURRENTLY PARTICIPATING IN THE UDP. MARINES ASSIGNED OR ATTACHED TO THESE UNITS WILL SEPARATE FROM THE MARINE CORPS NO LATER THAN 90 DAYS FOLLOWING THEIR RETURN TO CONUS OR HAWAII. COMMANDERS OF THESE UNITS ARE AUTHORIZED TO CONTINUE TO

REPORT STOP LOSS IAW REF A UNTIL THEIR RETURN TO CONUS. UNITS SCHEDULED FOR PARTICIPATION IN FUTURE UDP CYCLES WILL NOT HAVE STOP LOSS AUTHORITY.

(3) UNITS ASSIGNED TO OR ATTACHED TO 15TH AND 26TH MEU'S. MARINES ASSIGNED TO OR ATTACHED TO THESE MEU'S WILL SEPARATE FROM THE MARINE CORPS NO LATER THAN 90 DAYS FOLLOWING THEIR RETURN TO CONUS OR HAWAII. COMMANDERS OF THESE UNITS ARE AUTHORIZED TO CONTINUE TO REPORT STOP LOSS IAW REF A UNTIL THEIR RETURN TO CONUS.

(4) ALL OTHER UNITS. EFFECTIVE IMMEDIATELY, COMMANDERS WILL ESTABLISH SEPARATION DATES AS OUTLINED BELOW. FURTHER, COMMANDERS OF THESE UNITS ARE NO LONGER AUTHORIZED TO REPORT STOP LOSS IAW REF A.

E. ACTIVE COMPONENT SEPARATION INSTRUCTIONS.

(1) MARINES LOCATED IN CONUS OR HAWAII WHO ARE PAST THEIR PLANNED SEPARATION DATE OR WHO WILL REACH THEIR PLANNED SEPARATION DATE WITHIN 90 DAYS OF THE DATE OF THIS MARADMIN WILL SEPARATE NO LATER THAN 90 DAYS FROM THE DATE OF THIS MARADMIN.

(2) MARINES FORWARD DEPLOYED WHO ARE PAST THEIR PLANNED SEPARATION DATE OR WHO WILL REACH THEIR PLANNED SEPARATION DATE WITHIN 90 DAYS OF THEIR RETURN TO CONUS WILL SEPARATE NO LATER THAN 90 DAYS FROM THEIR RETURN TO CONUS.

(3) MARINES FORWARD STATIONED OCONUS WHO ARE PAST THEIR PLANNED SEPARATION DATE OR WHO WILL REACH THEIR PLANNED SEPARATION DATE WITHIN 90 DAYS OF THE RELEASE OF THIS MARADMIN WILL SEPARATE NO LATER THAN 15 SEP 03.

(4) MARINES IN THE FOLLOWING CATEGORIES WILL SEPARATE AS CURRENTLY PLANNED:

(A) MARINES LOCATED IN CONUS OR HAWAII WITH A PLANNED SEPARATION DATE THAT IS 91 OR MORE DAYS FROM THE DATE OF THIS MARADMIN.

(B) MARINES FORWARD STATIONED OCONUS WITH A PLANNED SEPARATION DATE THAT IS 91 OR MORE DAYS FROM THE DATE OF THIS MARADMIN.

(C) MARINES FORWARD DEPLOYED WITH A PLANNED SEPARATION DATE THAT IS 91 OR MORE DAYS FROM THE DATE OF THEIR RETURN TO CONUS.

(5) COMMANDERS ARE AUTHORIZED TO CHANGE THE STATUS OF MARINES ON STOP LOSS TO LEGAL OR MEDICAL HOLD AS DICTATED BY THE CURRENT CIRCUMSTANCES SURROUNDING THE MARINE.

(6) ESTABLISHED RETIREMENTS. REF A DELAYED THE RETIREMENT FOR SOME MARINES. IN THE MAJORITY OF CASES, THE NEW EXTENDED RETIREMENT DATE IS NO LONGER NECESSARY. MARINES WHO DESIRE TO RETIRE OR TRANSFER TO THE FLEET MARINE CORPS RESERVE (FMCR) PRIOR TO THE CURRENT APPROVED DATE CONTAINED IN THE MARINE CORPS TOTAL FORCE SYSTEM (MCTFS) WILL SUBMIT AN AA FORM TO HQMC (MMSR) CONTAINING JUSTIFICATION AND APPROPRIATE ENDORSEMENTS REQUESTING THIS CHANGE. REQUESTS FOR FURTHER DELAY IN RETIREMENT WILL NOT RECEIVE FAVORABLE CONSIDERATION. ALL REQUESTS WILL BE STAFFED THROUGH HQMC FOR DECISION. THESE DECISIONS WILL BE REFLECTED ON UNIT DIARY.

(7) FUTURE RETIREMENTS AND RESIGNATIONS. REQUESTS FOR RETIREMENT OR RESIGNATION WILL BE PROCESSED IN ACCORDANCE WITH STANDARD PRACTICES AND NO LONGER REQUIRE A FAVORABLE ENDORSEMENT FROM THE FIRST GENERAL OFFICER IN THE CHAIN OF COMMAND.

F. RESERVE COMPONENT SEPARATION INSTRUCTIONS.

(1) ACTIVATED RESERVISTS.

(A) ACTIVATED RESERVISTS AFFECTED BY STOP LOSS WILL BE ASSIGNED A NEW RECC OF 90 DAYS FROM THEIR DEACTIVATION DATE.

(B) PER REF B, SELECTED MARINE CORPS RESERVE (SMCR) COMMANDERS WILL CONTINUE TO STOP LOSS ACTIVATED SMCR MARINES WITH A RECC PRIOR TO THEIR UNIT'S DEACTIVATION DATE.

(C) ACTIVATED INDIVIDUAL MOBILIZATION AUGMENTEE (IMA) AND INDIVIDUAL READY RESERVE (IRR) MARINES FILLING INDIVIDUAL AUGMENTATION BILLETS WITH A RECC 91 OR MORE DAYS AWAY FROM THE DATE OF THIS MARADMIN WILL SEPARATE AS ORIGINALLY PLANNED.

(D) USMCR UNITS IN SUPPORT OF UDP OPERATIONS.

(I) ACTIVATED RESERVISTS PARTICIPATING IN UDP OPERATIONS WHO ARE AFFECTED BY STOP LOSS WILL BE SEPARATED NO LATER THAN 90 DAYS FROM THE DATE OF THIS MARADMIN. THE RECC OF THESE MARINES WILL NOT BE EXTENDED 90 DAYS BEYOND THEIR DEACTIVATION DATE.

(II) ACTIVATED RESERVISTS WITH A RECC 91 OR MORE DAYS AWAY FROM THE DATE OF THIS MARADMIN WILL SEPARATE AS ORIGINALLY PLANNED.

(2) NONMOBILIZED RESERVISTS.

(A) NONMOBILIZED RESERVISTS AFFECTED BY STOP LOSS WILL BE ASSIGNED A NEW RECC OF 90 DAYS FROM THE DATE OF THIS MARADMIN.

(B) NONMOBILIZED RESERVISTS WITH A RECC 91 OR MORE DAYS AWAY FROM THE DATE OF THIS MARADMIN WILL SEPARATE AS ORIGINALLY PLANNED.

(3) ACTIVE RESERVE (AR) PROGRAM.

(A) FORWARD DEPLOYED AR MARINES AFFECTED BY STOP LOSS WILL BE ASSIGNED A NEW EAS OF NO LATER THAN 90 DAYS AFTER THEIR RETURN TO CONUS.

(B) CONUS/OCONUS AR MARINES AFFECTED BY STOP LOSS WILL BE ASSIGNED A NEW EAS OF NO LATER THAN 90 DAYS FROM THE DATE OF THIS MARADMIN.

(C) AR MARINES WITH AN EAS OF 91 DAYS OR MORE FROM THE DATE OF THIS MARADMIN WILL SEPARATE AS ORIGINALLY PLANNED.

(D) AR STOP MOVE. THE STOP MOVE POLICY ANNOUNCED IN REF A IS TERMINATED.

(4) TRANSFERS TO THE IRR, INTERSERVICE AND INTERUNIT TRANSFERS, AND REQUESTS FOR RETIREMENT OR RESIGNATION. UPON THE DATE OF THIS MARADMIN, THE STOP LOSS RESTRICTIONS IN REF B GOVERNING TRANSFERS, RETIREMENTS, AND RESIGNATIONS ARE LIFTED FOR ALL RESERVISTS. REQUESTS FOR TRANSFERS, RETIREMENT, OR RESIGNATION WILL BE SUBMITTED AND ADJUDICATED IAW THE NORMAL APPLICABLE REGULATIONS AND THE INSTRUCTIONS LISTED BELOW.

(A) RETIREMENTS AND RESIGNATIONS. PARAGRAPHS 3.E.6 AND

3.E.7 ABOVE APPLY. ADDITIONALLY, ACTIVATED SMCR MARINES' NEW REQUESTED VOLUNTARY RETIREMENT OR RESIGNATION DATE WILL BE NO EARLIER THAN THEIR UNIT'S DEACTIVATION DATE. ACTIVATED RESERVISTS FACING MANDATORY RETIREMENT AS OF 1 JUN OR LATER WILL BE SEPARATED AS FOLLOWS:

(I) PER REF B, SMCR UNIT COMMANDERS WILL CONTINUE TO STOP LOSS ACTIVATED SMCR RESERVISTS WHO ARE FACING MANDATORY RETIREMENT AS OF 1 JUN OR LATER. UPON DEACTIVATION, THESE MARINES MUST IMMEDIATELY SUBMIT A RETIREMENT PACKAGE TO CMC (MMSR) VIA AA FORM WITH A REQUESTED RETIREMENT DATE OF NO LATER THAN 90 DAYS FROM THEIR DEACTIVATION DATE.

(II) GAINING FORCE COMMANDS WILL DEACTIVATE IMA AND IRR MARINES, FACING MANDATORY RETIREMENT ON 1 JUN OR LATER, NO LATER THAN 90 DAYS FROM THE DATE OF THIS MARADMIN. UPON DEACTIVATION, THESE MARINES MUST IMMEDIATELY SUBMIT A RETIREMENT PACKAGE TO CMC (MMSR) VIA AA FORM WITH A REQUESTED RETIREMENT DATE OF NO LATER 90 DAYS FROM THEIR DEACTIVATION DATE.

(III) MARINES WHO FAIL TO REQUEST RETIREMENT WILL BE DISCHARGED AND WILL HAVE TO PETITION THE BOARD FOR CORRECTION OF NAVAL RECORDS FOR RETIREMENT.

(B) TRANSFERS. IOT FACILITATE AN EFFICIENT UNIT DEACTIVATION PROCESS, SMCR UNIT COMMANDERS MAY DELAY THE ADJUDICATION OF IRR, INTERSERVICE AND INTERUNIT TRANSFER REQUESTS UNTIL THE UNIT HAS COMPLETED ITS DEACTIVATION.

(5) VOLUNTARY REENLISTMENT/EXTENSIONS. THE GUIDANCE PUBLISHED IN THIS MARADMIN EXTENDS THE RECC OF RESERVE MARINES AFFECTED BY STOP LOSS BY 90 DAYS TO AFFORD THEM THE OPPORTUNITY TO REENLIST OR EXTEND.

(6) THE TERMINATION OF STOP LOSS DOES NOT RELEASE MARINES WITH A CONTRACTUAL OBLIGATION TO DRILL (OBLIGORS) FROM FULFILLING THEIR DRILL PARTICIPATION REQUIREMENTS BASED ON THE INITIAL ENLISTMENT CONTRACT.

G. ADMINISTRATIVE INSTRUCTIONS. SPECIFIC GUIDANCE PERTAINING TO UNIT DIARY ENTRIES AND SPECIFIC TRANSACTION TYPE CODE (TTC) ENTRIES CONCERNING STOP LOSS WILL BE FORTHCOMING UNDER SEPCOR. COMMANDERS ARE NOT AUTHORIZED TO AFFECT UNIT DIARY ENTRIES UNTIL THIS GUIDANCE IS PUBLISHED.

4. THE PROVISIONS OF REF C REMAIN IN EFFECT. THE CMC (MPP) WILL HOST AN IA ROTATION CONFERENCE FROM 15-23 MAY TO ASSESS THE CONTINUED NEED FOR IA'S AND DEVELOP FURTHER POLICY ON THIS ISSUE. SUBSEQUENTLY, FURTHER IA GUIDANCE WILL BE PROMULGATED BY SEPCOR.

5. STOP MOVE. STOP MOVE WAS IMPLEMENTED TO STABILIZE THE FORCE, ENHANCE UNIT COHESION, AND ASSIST IN MEETING MANPOWER REQUIREMENTS IN SUPPORT OF CURRENT AND POTENTIAL FUTURE OPERATIONS. THE STOP MOVE POLICY ANNOUNCED IN REFERENCES A AND D IS TERMINATED FOR ALL ACTIVE DUTY PERSONNEL. THE FOLLOWING POINTS OF CLARIFICATION PERTAIN.

A. ROTATION TOUR DATES (RTD). FOR THOSE MARINES PERMANENTLY

STATIONED OCONUS, IT IS THE INTENT OF HQMC TO ROTATE PERSONNEL WITH THE MOST MATURE RTD FIRST. IN MOST CASES THE RTD WILL BE THE DETERMINING FACTOR WHEN PRIORITIZING MARINES. HOWEVER, THE RTD WILL NOT BE THE SOLE DETERMINING FACTOR. MMOA/MMEA WILL COORDINATE CLOSELY WITH THE INDIVIDUAL MARINE, THE GAINING COMMAND, AND THE LOSING COMMAND IN ORDER TO MEET THE REQUIREMENTS OF THE CORPS.

B. OFFICER ASSIGNMENTS. REF A STATED THAT ALL ORDERS FOR MARINES WITH A DETACH DATE OF 15 FEB 03 OR LATER WILL BE HELD IN ABEYANCE. AS OF THE DATE OF THIS MESSAGE, THOSE ORDERS ARE NO LONGER HELD IN ABEYANCE. IN THOSE CASES WHERE REQUIREMENTS HAVE CHANGED, MMOA WILL MAKE EVERY POSSIBLE EFFORT TO HONOR PREVIOUS AGREEMENTS IAW THE NEEDS OF THE MARINE CORPS AND THE DESIRES OF INDIVIDUAL OFFICERS. OFFICERS IN RECEIPT OF PCA/PCS ORDERS WHOSE REPORT DATE HAS PASSED SHOULD CONTACT THEIR MONITORS AS SOON AS POSSIBLE TO DISCUSS MODIFICATION OF REPORTING DATE.

C. ENLISTED ASSIGNMENTS. UNDERSTANDING THAT CURRENT AND FUTURE OPERATIONAL REQUIREMENTS MAY HAVE AFFECTED PREVIOUSLY ISSUED ORDERS, MMEA WILL MAKE EVERY EFFORT TO FULFILL THOSE COMMITMENTS. EFFECTIVE IMMEDIATELY THE FOLLOWING ORDERS PROCEDURES WILL APPLY:

(1) MMEA WILL PROVIDE UNDER SEPCOR A CONSOLIDATED LIST OF ALL MMEA APPROVED ORDERS WITH AN EFFECTIVE DATE OF 1 JUNE 03 OR LATER TO MAJOR SUBORDINATE COMMANDS (MSC'S).

(2) ALL OTHER PCS ELIGIBLE MARINES NOT IDENTIFIED IN THE LIST PROVIDED BY MMEA, MAY CONTACT MMEA IAW LOCAL POLICIES AS DIRECTED BY MSC COMMANDERS. ONLY THOSE REQUESTS FOR ORDERS WITH APPROPRIATE COMMAND ENDORSEMENT WILL BE CONSIDERED BY MMEA.

D. OFFICER RESIDENT PROFESSIONAL MILITARY EDUCATION (PME). OFFICER ATTENDANCE AT RESIDENT PME REPRESENTS A SIGNIFICANT INVESTMENT IN THE FUTURE OF THE CORPS, AND THE GOAL IS TO FILL EACH SCHOOL SEAT. ACCORDINGLY, OFFICERS SELECTED FOR TOP LEVEL SCHOOL (TLS), INTERMEDIATE LEVEL SCHOOL (ILS), CMC NATIONAL FELLOWSHIPS, AND CAREER LEVEL SCHOOL (CLS) WILL ATTEND AS ANNOUNCED IN REFERENCES E, F, G, AND H. THIS ALSO INCLUDES OFFICERS SELECTED TO ATTEND THE SCHOOL OF ADVANCED WARFIGHTING, THE SCHOOL OF ADVANCED MILITARY STUDIES, AND THE SCHOOL OF ADVANCED AIRPOWER STUDIES.

(1) TLS. REQUESTS FOR DEFERRAL DUE TO OPERATIONAL NECESSITY WILL BE CONSIDERED ON A CASE-BY-CASE BASIS. ALL REQUESTS SHOULD ORIGINATE FROM THE SELECTED OFFICERS, INCLUDE APPROPRIATE ENDORSEMENTS, AND BE FORWARDED TO THE CMC (MMOA-3). ALL OFFICERS WHO ARE DEFERRED WILL BE SUBJECT TO VALIDATION BY THE AY 04/05 TLS BOARD IN ACCORDANCE WITH EXISTING POLICY. IN THE EVENT A PRIMARY SELECTEE IS UNABLE TO ATTEND, EVERY ATTEMPT WILL BE MADE TO FLEET UP AN ALTERNATE.

(2) ILS, CMC NATIONAL FELLOWSHIPS AND CLS (TYPES I AND II). THERE ARE NO DEFERRALS FOR THESE ASSIGNMENTS. IF AN OFFICER IS DEEMED UNABLE TO ATTEND DUE TO OPERATIONAL NECESSITY, THE CMC (MMOA-3) MUST BE NOTIFIED IMMEDIATELY AND THE AFFECTED OFFICER WILL COMPETE FOR A SCHOOL SEAT DURING THE AY 04/05 SELECTION PROCESS IF

ELIGIBLE.

E. COMMAND SCREENING PROGRAM.

(1) FY03 BOARDS. CHANGES OF COMMAND FOR BOTH COLS AND LTCOLS, AS INITIALLY ANNOUNCED IN REFERENCES I AND J, WILL CONTINUE TO OCCUR AS SCHEDULED TO THE MAXIMUM EXTENT POSSIBLE. THERE ARE NO DEFERRALS FOR COMMAND SLATED OFFICERS. IN THE EVENT AN OFFICER IS UNABLE TO ASSUME COMMAND DUE TO OPERATIONAL NECESSITY A REQUEST FOR THE AFFECTED OFFICER TO BE REMOVED WITHOUT PREJUDICE FROM THE COMMAND SLATE MAY BE SUBMITTED VIA THE MARINE'S CHAIN OF COMMAND VIA THE FIRST GENERAL OFFICER TO THE CMC (MMOA-3). IF APPROVED, THE AFFECTED OFFICER WILL BE CONSIDERED BY THE APPLICABLE FY04 COMMAND SCREENING BOARD AS LONG AS ALL OTHER ELIGIBILITY CRITERIA ARE STILL MET. CHANGES OF COMMAND MAY BE DELAYED DUE TO ONGOING OPERATIONS AS THE CHAIN OF COMMAND DEEMS APPROPRIATE, BUT ANY DELAY MUST NOT EXTEND THE CHANGE OF COMMAND DATE BEYOND THE PERIOD SLATED BY THE FY03 BOARD (1 JUN 03 - 31 MAY 04). ANY SUCH DELAY MUST BE COORDINATED WITH THE CMC (MMOA), THE AFFECTED COMMANDS, AND THE AFFECTED OFFICERS.

(2) FY04 BOARDS. THE FY04 BOARDS WILL BE HELD AS SCHEDULED. THE LTCOL COMMAND SCREENING BOARD CONVENES 8 JULY, AND THE COLONEL COMMAND SCREENING BOARD CONVENES 15 JULY. THESE BOARDS WILL SLATE COMMANDS WHICH WILL CHANGE COMMANDERS DURING THE PERIOD 1 JUN 04 - 31 MAY 05. THE BILLET VALIDATION PROCESS IS CURRENTLY UNDERWAY, AND ONCE COMPLETED, WILL SERVE AS THE FOUNDATION FOR BOARD ANNOUNCEMENT AND OPENING OF THE COMMAND SCREENING QUESTIONNAIRES ON THE CMC (MMOA) WEB SITE.

F. OTHER PROGRAMS.

(1) SPECIAL EDUCATION PROGRAM (SEP). OFFICERS SERVING ON SEP PAYBACK TOURS WILL ROTATE UPON COMPLETION OF THEIR SCHEDULED TOUR. OFFICERS SELECTED FOR THE SEP WILL ATTEND AS ANNOUNCED IN REFERENCES K AND L. REQUESTS FOR DELAY IN ATTENDANCE FOR OPERATIONAL NECESSITY WILL BE CONSIDERED ON A CASE-BY-CASE BASIS. REQUESTS WILL BE SUBMITTED TO MMOA-5 WITH ENDORSEMENTS.

(2) SNCO DEGREE COMPLETION PROGRAM. ENLISTED MARINES SERVING IN DEGREE COMPLETION PROGRAM PAYBACK BILLETS WILL ROTATE UPON COMPLETION OF THEIR SCHEDULED TOUR. ADDITIONALLY, MARINES SELECTED FOR OR APPLYING FOR THIS PROGRAM WILL CONTINUE TO EXECUTE ORDERS AS DIRECTED.

(3) COMMISSIONING PROGRAMS. MARINES SELECTED FOR ANY OF THE COMMISSIONING PROGRAMS (ECP/MECEP/BOOST/MCP/USNA) WILL EXECUTE ORDERS AS ISSUED.

G. RECRUITING STATION COMMANDING OFFICERS (RSCO'S). SIMILAR TO THE TLS BOARD AND COMMAND SCREENING BOARDS, RSCO'S ARE ALSO BOARD SELECTED. THE RESULTS OF THIS SELECTION PROCESS WERE ANNOUNCED IN REF M. IT IS THE INTENT OF THIS HEADQUARTERS THAT ALL SELECTED RSCO'S EXECUTE THEIR ASSIGNMENT ORDERS.

H. LATERAL MOVE REQUESTS.

(1) OFFICERS MAY CONTINUE TO SUBMIT REQUESTS FOR LATERAL

MOVES. FOR THOSE OFFICERS WITH APPROVED REQUESTS, ASSIGNMENT TO THE MOS PRODUCING SCHOOL WILL BE COORDINATED AND APPROVED AS SOON AS FEASIBLE.

(2) ENLISTED MARINES APPROVED FOR LATERAL MOVE ARE REQUIRED TO ATTEND THEIR SCHEDULED MOS PRODUCING SCHOOL AS DIRECTED BY THIS HEADQUARTERS.

6. POINTS OF CONTACT ARE LISTED BELOW:

MMOA POINTS OF CONTACT ARE:

LTCOL J. R. TAYLOR, HEAD, MMOA-3
DSN 278-9284 COMM (703) 784-9284
INTERNET ADDRESS (TAYLORJR@MANPOWER.USMC.MIL)
LTCOL J. J. GAMELIN, HEAD, MMOA-5
DSN 278-9284 COMM (703) 784-9284
INTERNET ADDRESS (GAMELINJJ@MANPOWER.USMC.MIL)

MMEA POINT OF CONTACT IS:

MAJ S. D. LEONARD, HEAD, ENLISTED MONITORS
DSN 278-9329 COMM (703) 784-9329
INTERNET ADDRESS (LEONARDSD@MANPOWER.USMC.MIL)

MP POINT OF CONTACT IS:

MAJ J. W. BICKNELL, ENL PLANS SECTION
DSN 278-9363 COMM (703) 784-9363

RAP POINT OF CONTACT IS:

MAJ C. K. MACE, RESERVE POLICY SPECIALIST
DSN 278-9139 COMM (703) 784-9139
INTERNET ADDRESS (MACECK@MANPOWER.USMC.MIL)

7. THIS MARADMIN APPLIES TO THE TOTAL FORCE.

//

Official U.S. Marine Corps Web Site RSS Feeds Privacy Policy External Links FOIA Sitemap FAQs Contact Us

TAB E

ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND ST MOVE

Date Signed: 5/23/2003
MARADMIN Number: 250/03

R 231003Z MAY 03
FM CMC WASHINGTON DC(uc)
TO AL MARADMIN(uc)
MARADMIN
BT
UNCLASSIFIED
MARADMIN 250/03
MSGID/GENADMIN/CMC WASHINGTON DC MRA MP//
SUBJ/ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND /STOP MOVE//
REF/A/MSG/CMC MM/121500ZMAY2003/-//
REF/B/MSG/CMC RA/011600ZAPR2003/-//
REF/C/DOC/CMC RA/10MAR1999/-//
REF/D/DOC/CMC MP/04FEB2000/-//
REF/E/DOC/CMC MM/20MAY2001/-//
POC/J.W. BICKNELL/MAJ/CMC (MPP)/-/TEL:COM 703-784-9363 /TEL:DSN 278-9363//
POC/T.L. GREENE/CAPT/CMC (MMOA)/-/TEL:COM 703-784-9272 /TEL:DSN 278-9272//
POC/J.N. RICE/MAJ/CMC (MMSR)/-/TEL:COM 703-784-9304/TEL:DSN 278-9304 //
POC/S.A. ALBERT/CWO3/CMC (MI)/-/TEL:COM 703-784-9043/TEL:DSN 278-9043 //
POC/C.K. MACE/MAJ/CMC (RAP)/-/TEL:COM 703-784-9139/TEL:DSN 278-9139//
NARR/REF A IS MARADMIN 228/03, TERMINATION OF MARINE CORPS STOP MOVE AND STOP LOSS POLICY. REF B IS MARADMIN 156/03, POLICY FOR APPLYING STOP LOSS TO MEMBERS OF THE MARINE CORPS RESERVE. REF C IS MCO P1001R.1J, MARINE CORPS RESERVE ADMINISTRATIVE MANAGEMENT MANUAL. REF D IS MCO P1050.3H, REGULATIONS FOR LEAVE, LIBERTY, AND ADMINISTRATIVE ABSENCE. REF E IS MCO P1900.16F, MARINE CORPS SEPARATION AND RETIREMENT MANUAL.//
GENTEXT/REMARKS/1. PER REF A, THIS MARADMIN PROVIDES ADMIN INSTRUCTIONS
FOR THE TERMINATION OF STOP LOSS. COMMANDERS WILL FOLLOW THESE INSTRUCTIONS TO REESTABLISH SEPARATION AND RETIREMENT DATES FOR MARINES AFFECTED BY STOP LOSS. FOR SITUATIONS NOT COVERED IN THIS MARADMIN, EXISTING POLICIES AND PROCEDURES WILL BE USED.
2. COMMANDANT'S INTENT. MARINES AFFECTED BY STOP LOSS HAVE "GONE

THE EXTRA MILE" FOR THE CORPS IN THE LAST SEVERAL MONTHS. THE ADMINISTRATION OF THEIR SEPARATIONS AND RETIREMENTS WILL BE ACCOMPLISHED IN AN EFFECTIVE, ORDERLY, TIMELY, AND DIGNIFIED MANNER, REFLECTING THE RESPECT THOSE MARINES DESERVE.

3. DEFINITIONS

A. PLANNED SEPARATION DATE. PLANNED SEPARATION DATE IS DEFINED AS A MARINE'S ORIGINAL END OF ACTIVE SERVICE (EAS), END OF CURRENT CONTRACT (ECC), RESERVE END OF CURRENT CONTRACT (RECC) OR ORIGINALLY PLANNED RESIGNATION DATE. MARINES WHO ARE PAST THEIR PLANNED SEPARATION DATE ARE "ON STOP LOSS."

B. FORWARD DEPLOYED. UNITS ARE FORWARD DEPLOYED IF THE UNIT IS TEMPORARILY DEPLOYED FROM ITS PERMANENT CONUS AND HAWAII LOCATION. EXAMPLES INCLUDE FORCES ASSIGNED TO MARCENT, PARTICIPANTS IN THE UNIT DEPLOYMENT PROGRAM AND MARINE EXPEDITIONARY UNITS.

C. FORWARD STATIONED. UNITS ARE FORWARD STATIONED IF THE UNIT IS PERMANENTLY LOCATED OUTSIDE OF CONUS AND HAWAII. EXAMPLES OF THESE UNITS INCLUDE 3RD FSSG; H&S BN, 3RD MARDIV; MCAS, IWAKUNI; AND CO A, MSG BN. FORWARD STATIONED UNITS ARE NOT CONSIDERED FORWARD DEPLOYED.

D. STOP LOSS. THE AUTHORITY GRANTED BY SECNAV TO THE MARINE CORPS TO EXTEND MARINES BEYOND THE END OF THEIR CONTRACTUALLY OBLIGATED SERVICE. THE SECNAV AUTHORITY GRANTED WAS LIMITED TO EXTENDING THE OBLIGATED SERVICE OF MARINES WITH PLANNED SEPARATION DATES BETWEEN 15 JAN 2003 AND 31 AUGUST 2003. MARINES WITH AN ECC/EAS OR RECC AFTER 31 AUGUST 2003 SHOULD NOT HAVE BEEN STOP LOSSED AND DO NOT NEED TO HAVE THEIR DATES CORRECTED. FOR REFERENCE TO ORIGINAL DATE, RESERVIST'S ORIGINAL RECC DATE WAS MOVED TO THE ADAPTABILITY TEST DATE FIELD IN MCTFS.

E. INDIVIDUAL AUGMENTEES (IA). IA'S ARE MEMBERS OF THE INDIVIDUAL MOBILIZATION AUGMENTEE (IMA) PROGRAM, MEMBERS OF THE INDIVIDUAL READY RESERVE (IRR), MEMBERS OF THE SELECTED MARINE CORPS RESERVE (SMCR) ACTIVATED AS AN INDIVIDUAL, OR RECALLED RETIREES WHO HAVE BEEN ACTIVATED IN SUPPORT OF ONE/OEF/OIF.

F. ACTIVATED RESERVISTS AFFECTED BY STOP LOSS. THE ORIGINAL RECC FOR THOSE RESERVISTS WHO HAVE BEEN RUN IN THE MARINE CORPS TOTAL FORCE SYSTEM (MCTFS) AS BEING STOP LOSSED WILL DISPLAY 'COFGI' IN MCTFS AND BLANKS IN ODSE REPORTS.

4. ACTIVE COMPONENT. THIS PARAGRAPH APPLIES TO THE ACTIVE COMPONENT ONLY. INSTRUCTIONS FOR RESERVE COMPONENT MEMBERS ARE COVERED IN PARAGRAPH 5 BELOW.

A. STOP CRISIS CODE. ENSURE STOP CRISIS CODE TTC 887 001 IS REPORTED ON THOSE ACTIVE COMPONENT MEMBERS WHOSE RECORD REFLECTS AN ACTIVE CRISIS CODE. THE EFFECTIVE DATE FOR THIS DIARY ENTRY WILL BE THE LAST DAY THE MARINE IS IN DIRECT SUPPORT OF OEF/OIF.

B. OFFICERS. CMC (MMOA) WILL MAKE THE FOLLOWING ADJUSTMENTS TO MARINES' EAS/ECC AND WILL ISSUE RELEASE FROM ACTIVE DUTY (RELACDU) ORDERS NLT 60 DAYS PRIOR TO THEIR EAS.

(1) RESERVE OFFICERS IN THE ACTIVE COMPONENT LOCATED IN CONUS OR HAWAII WILL RECEIVE AN EAS/ECC DATE OF 12 AUG 2003, WHICH IS 90 DAYS

FROM THE RELEASE OF REF A. CMC (MMOA) WILL MAKE THESE CHANGES WITHOUT ANY ACTION REQUIRED BY COMMANDERS.
(2) RESERVE OFFICERS IN THE ACTIVE COMPONENT WHO ARE FORWARD DEPLOYED WILL RECEIVE AN EAS/ECC 90 DAYS FROM THE DATE OF THEIR RETURN TO CONUS OR HAWAII. COMMANDERS WILL REQUEST VIA CMC (MMOA) THE OFFICER'S NEW EAS/ECC IN WRITING (VIA MSG, AA FORM OR NAVAL LETTER) AS SOON AS THE OFFICERS' PROJECTED RETURN DATE TO CONUS OR HAWAII IS KNOWN. MSG TRAFFIC IS THE PREFERRED METHOD OF CORRESPONDENCE.
(3) RESERVE OFFICERS IN THE ACTIVE COMPONENT WHO ARE FORWARD STATIONED WILL RECEIVE AN EAS/ECC OF 15 SEP 2003 PER REF A. CMC (MMOA) WILL MAKE THESE CHANGES WITHOUT ANY ACTION REQUIRED BY COMMANDERS.
(4) OFFICERS REQUESTING AN EAS EARLIER THAN THAT ESTABLISHED BY REF A MUST REQUEST SUCH ACTION IN WRITING (VIA MSG, AA FORM OR NAVAL LETTER). MSG TRAFFIC IS THE PREFERRED METHOD OF CORRESPONDENCE. THE BODY OF THE CORRESPONDENCE SHOULD READ AS FOLLOWS: "PER MARADMIN 007/03, SUBJECT NAMED OFFICER (SNO) WAS STOP LOSSED. PER MARADMIN 228/03 SNO'S NEW EAS/ECC SHOULD BE ESTABLISHED AS 03XXXX (DATE). SNO REQUESTS HIS/HER EAS/ECC BE ESTABLISHED AT (DATE REQUESTED) IN ORDER TO (STATE REASON)." THE RELEASE OF THIS CORRESPONDENCE PROVIDES COMMAND ENDORSEMENT OF SNO'S NEW EAS.
(5) OFFICERS REQUESTING AN EAS LATER THAN THAT ESTABLISHED BY REF A MUST REQUEST SUCH ACTION IN WRITING (VIA MSG, AA FORM OR NAVAL LETTER). AA FORM IS THE PREFERRED METHOD OF CORRESPONDENCE. EXCEPTIONS TO REF A MUST BE EXPEDITIOUSLY FORWARDED TO CMC (MMOA) WITH JUSTIFICATION AND GENERAL OFFICER ENDORSEMENT. REQUESTS WILL INCLUDE THE REASON WHY INDIVIDUALS MUST BE RETAINED TO SATISFY CRITICAL OPERATIONAL REQUIREMENTS AND A DATE WHEN IT IS ANTICIPATED THAT THE MARINE WILL NO LONGER BE NEEDED.
(6) THE MAILING ADDRESS IS: COMMANDANT OF THE MARINE CORPS, HEADQUARTERS US MARINE CORPS MANPOWER AND RESERVE AFFAIRS (MMOA), 3280 RUSSELL ROAD, QUANTICO, VA 22134-5103.
C. ENLISTED. FOR ALL UNITS EXCEPT THOSE FORWARD DEPLOYED, DETERMINE AND REPORT THE NEW SEPARATION DATE (EAS/ECC) AS SOON AS POSSIBLE BUT NO LATER THAN 15 JUN 2003. FORWARD DEPLOYED UNITS DETERMINE AND REPORT THE NEW SEPARATION DATE AS SOON AS PRACTICAL. ONCE THE COMMANDER DETERMINES THE SEPARATION DATE PER REF A, FOLLOW THE INSTRUCTIONS BELOW:
(1) FOR MARINES NOT REENLISTING ON ACTIVE DUTY.
(A) IF THE MARINE CHOOSES TO REENLIST INTO THE SMCR. REPORT NEW EAS/ECC DATES USING TTC 077 000 EAS AND TTC 122 000 ECC; REPORT TTC 004 001 REENLIST USMCR AND TTC 378 000 DROP KBK2. ONCE DROPPED, THE SMCR WILL JOIN MEMBER. NOTE: DROP AND JOIN ENTRIES MUST BE COORDINATED WITH THE SMCR UNIT AND PRIOR SERVICE RECRUITING.
(B) IF THE MARINE CHOOSES NOT TO REENLIST INTO THE SMCR. REPORT NEW EAS/ECC DATES USING TTC 077 000 EAS AND TTC 122 000 ECC; REPORT TTC 378 000 DROP WITH APPROPRIATE SPD CODE PER CODES MANUAL.
(2) FOR MARINES REENLISTING ON ACTIVE DUTY. REPORT NEW EAS/ECC DATES

USING TTC 077 000 EAS AND TTC 122 000 ECC; REPORT TTC 123 001 WILL REENTER; REPORT TTC 004 000 REENL USMC.
5. RESERVE COMPONENT. THE TERMINATION OF STOP LOSS FOR THE RESERVE COMPONENT IS A HIGHLY COMPLEX PROCESS. DETERMINING WHEN STOP LOSS IS PHASED OUT FOR EACH INDIVIDUAL RESERVIST DEPENDS ON WHAT CATEGORY THEY FALL UNDER. THESE CATEGORIES ARE DEFINED BELOW. INCLUDED THEREIN ARE STEP-BY-STEP INSTRUCTIONS REGARDING HOW STOP LOSS IS PHASED OUT FOR THOSE MARINES WHO FALL UNDER EACH CATEGORY. THIS PARAGRAPH AMPLIFIES REF A.
A. SMCR MARINES AFFECTED BY STOP LOSS.
(1) ACTIVATED SMCR MARINES. SMCR MARINES WILL DEACTIVATE WITH THEIR UNITS.
(A) IF AN SMCR MARINE'S ORIGINAL RECC HAS EXPIRED, THE UNIT WILL ESTABLISH A NEW RECC EQUAL TO 90 DAYS AFTER THE SMCR UNIT'S DEACTIVATION DATE BY REPORTING TTC 122 002.
(B) IF AN SMCR MARINE'S ORIGINAL RECC IS GREATER THAN OR EQUAL TO 90 DAYS AFTER THE UNIT'S DEACTIVATION DATE, THE MARINE SHOULD NOT HAVE BEEN STOP LOSSED. THE UNIT WILL REESTABLISH THE ORIGINAL RECC BY REPORTING TTC 122 002.
(2) SMCR UNITS IN SUPPORT OF UDP OPERATIONS.
(A) IF AN SMCR MARINE'S ORIGINAL RECC HAS EXPIRED OR WILL EXPIRE BY 12 AUG 2003, THE UNIT WILL DEACTIVATE THE MARINE BY 12 AUG 2003. THE UNIT WILL ESTABLISH A RECC OF 12 AUG 2003 BY REPORTING TTC 122 002.
(B) IF AN SMCR MARINE'S ORIGINAL RECC EXPIRES AFTER 12 AUG 2003, THE MARINE WILL SEPARATE AS PLANNED. IF THE MARINE WAS STOP LOSSED, THE UNIT WILL REESTABLISH THE MARINE'S ORIGINAL RECC BY REPORTING TTC 122 002.
(3) NON-MOBILIZED SMCR UNITS.
(A) IF AN SMCR MARINE'S ORIGINAL RECC HAS EXPIRED OR WILL EXPIRE PRIOR TO 12 AUG 2003, THE UNIT WILL ESTABLISH A NEW RECC OF 12 AUG 2003 BY REPORTING TTC 122 002.
(B) IF AN SMCR MARINE'S ORIGINAL RECC EXPIRES AFTER 12 AUG 2003, THE MARINE WILL SEPARATE AS PLANNED. PER REF B, THESE MARINES SHOULD NOT HAVE BEEN STOP LOSSED. THE UNIT WILL REESTABLISH THE ORIGINAL RECC BY REPORTING TTC 122 002.
B. IA MARINES AFFECTED BY STOP LOSS.
(1) FORWARD DEPLOYED IA MARINES AFFECTED BY STOP LOSS WILL DEACTIVATE NO LATER THAN 90 DAYS AFTER THEIR RETURN TO CONUS. UPON THE MARINE'S DEACTIVATION, THE MOBILIZATION PROCESSING CENTER/MOBILIZATION SUPPORT BATTALION/GAINING FORCE COMMAND (MPC/MSB/GFC), WHICHEVER IS APPLICABLE, WILL ESTABLISH A NEW RECC EQUAL TO 90 DAYS AFTER THE MARINE'S DEACTIVATION DATE BY REPORTING TTC 122 002. NOTE: MPC AND GFC CANNOT REPORT RECC ON RESERVISTS, THEREFORE, THE NEW RECC WILL HAVE TO BE COORDINATED BETWEEN THE MPC/GFC AND MCRSC IN ORDER TO RUN THE CORRECT INFORMATION.
(2) CONUS IA MARINES AFFECTED BY STOP LOSS WILL DEACTIVATE NO LATER THAN 15 SEP 2003. UPON THE MARINE'S DEACTIVATION, THE MPC/MSB/GFC, WHICHEVER IS APPLICABLE, WILL ESTABLISH A NEW RECC EQUAL TO 90 DAYS

AFTER THE MARINE'S DEACTIVATION DATE BY REPORTING TTC 122 002.
(3) CONUS IA MARINES AFFECTED BY STOP LOSS WHOSE ORIGINAL RECC EXPIRES AFTER 15 SEP 2003 WILL SEPARATE AS PLANNED. PER REF B, THESE MARINES SHOULD NOT HAVE BEEN STOP LOSSED. THE MPC/MSB/GFC WILL REESTABLISH THE ORIGINAL RECC BY REPORTING TTC 122 002.
(4) IA MARINES AFFECTED BY STOP LOSS WHO DESIRE TO COMPLETE THEIR CURRENT MOBILIZATION ORDERS MUST VOLUNTARILY EXTEND OR REENLIST. COMMANDERS WILL PROCESS THESE EXTENSION OR REENLISTMENT REQUESTS IN ACCORDANCE WITH ESTABLISHED PROCEDURES. COMMANDERS ARE NOT AUTHORIZED TO EXTEND THE EXPIRATION DATE OF THE MARINE'S MOBILIZATION ORDERS.
C. FOR NON-MOBILIZED IMA AND IRR MARINES MCRSC WILL ESTABLISH A NEW RECC OF NO LATER THAN 12 AUG 2003 BY REPORTING TTC 122 002.
D. ACTIVE RESERVE (AR) MARINES. AR MARINES AFFECTED BY STOP LOSS WILL BE RELEASED NO LATER THAN 12 AUG 2003. COMMANDS WILL REPORT TTC'S 077 000 AND 122 000 TO ESTABLISH A NEW EAS AND NEW ECC EQUAL TO THE MARINE'S DEACTIVATION DATE. IN ADDITION, COMMANDS WILL ALSO REPORT TTC 122 002 TO ESTABLISH A NEW RECC EQUAL TO THE MARINE'S DEACTIVATION DATE.
E. REENLISTMENT/EXTENSION OF RESERVISTS AFFECTED BY STOP LOSS. RESERVISTS AFFECTED BY STOP LOSS CAN SUBMIT FOR REENLISTMENT OR EXTENSION. IOT EFFECT AN APPROVED REENLISTMENT OR EXTENSION, A MARINE MUST HAVE A RECC IN MCTFS. OTHERWISE, ANY UNIT DIARY ENTRIES REPORTED IN MCTFS THAT ARE ASSOCIATED WITH A REENLISTMENT OR EXTENSION WILL FAIL. THEREFORE, COMMANDS WILL ESTABLISH A NEW RECC FOR THESE MARINES, IAW THE APPLICABLE INSTRUCTIONS PROMULGATED ABOVE, PRIOR TO EFFECTING A REENLISTMENT.
F. MANDATORY RETIREMENTS. NON-MOBILIZED RESERVISTS FACING MANDATORY RETIREMENT WILL RETIRE ON THEIR MANDATORY RETIREMENT DATE. ACTIVATED RESERVISTS WILL RETIRE AS FOLLOWS:
(1) ACTIVATED RESERVISTS WITH MANDATORY RETIREMENT DATES OF 1 JUN, 1 JUL, OR 1 AUG 2003 WILL RETIRE NO LATER THAN 1 OCT 2003. COMMANDS WILL DEACTIVATE THESE MARINES NO LATER THAN 1 SEP 2003. UPON DEACTIVATION, THESE MARINES MUST IMMEDIATELY SUBMIT FOR RETIREMENT PER REF A. IF THEY FAIL TO DO SO THEY WILL BE DISCHARGED. SUBSEQUENTLY, THEY WILL HAVE TO PETITION BCNR FOR RETIREMENT.
(2) RESERVISTS WITH MANDATORY RETIREMENT DATES OF 1 SEP 2003 OR LATER WILL RETIRE ON THEIR MANDATORY RETIREMENT DATE. IF THEY ARE CURRENTLY ACTIVATED, COMMANDS WILL DEACTIVATE THEM NO LATER THAN 30 DAYS PRIOR TO THEIR MANDATORY RETIREMENT DATE. UPON DEACTIVATION, THESE MARINES MUST IMMEDIATELY SUBMIT FOR RETIREMENT PER REF A. IF THEY FAIL TO DO SO THEY WILL BE DISCHARGED. SUBSEQUENTLY, THEY WILL HAVE TO PETITION BCNR FOR RETIREMENT.
G. IMA TOUR LENGTHS. THE IMA TOUR LENGTH POLICY BELOW IS INTENDED TO GIVE IMA OPSPONSORS MAXIMUM FLEXIBILITY IN MEETING OPERATIONAL REQUIREMENTS BASED ON AVAILABLE PERSONNEL, EVOLVING REQUIREMENTS AND THE IMPACT OF MOBILIZATION.
(1) PREVIOUSLY ESTABLISHED OPSPONSOR IMA PAYCHECK ALLOCATIONS ARE

STILL IN EFFECT. AN IMA MEMBER'S PERIOD OF MOBILIZATION WILL COUNT TOWARD THE STANDARD TOUR LENGTH OF THREE YEARS. THIS SUPERCEDES THE CUMULATIVE SERVICE CALCULATION GUIDANCE IN PARA 10007.5 OF REF C. REF C WILL BE REVISED TO REFLECT THIS CHANGE IN THE NEXT ADDITION. IN REQUESTING TOUR LENGTH EXTENSIONS PER REF C, IMA OPSPONSORS SHOULD INCLUDE IMA MEMBER'S MOBILIZATION PERIOD AND A BRIEF HISTORY OF DUTIES PERFORMED DURING ACTIVATION.

(2) IN CASES WHERE A MOBILIZED IMA MEMBER REACHED END OF TOUR (EOT) LIMITS WHILE MOBILIZED, CG MCRSC MAY GRANT A 4-MONTH EXTENSION UPON DEACTIVATION. IF REQUIRED, THIS PERIOD WILL ALLOW THE OPSPONSOR TIME TO REQUEST AN ADDITIONAL TOUR LENGTH EXTENSION TO CMC (RA) VIA MCRSC PER REF C. IF THE OPSPONSOR HAS IDENTIFIED A SUITABLE REPLACEMENT, THE PREVIOUS INCUMBENT MAY USE THE 4-MONTH PERIOD TO FIND ANOTHER BILLET IN AN SMCR UNIT OR IMA DET.

(3) AT THE DISCRETION OF THE OPSPONSOR, IMA MEMBERS WHO HAVE NOT REACHED EOT LENGTHS MAY BE RETAINED FOR THE PERIOD OF THEIR INITIAL TOUR AND ANY PREVIOUSLY APPROVED CMC EXTENSIONS.

(4) IF AN IMA WAS MOBILIZED TO SUPPORT REQUIREMENTS EXTERNAL TO THE OPSPONSOR'S T/O AND THE OPSPONSOR SOURCED A REPLACEMENT, CG MCRSC IS AUTHORIZED TO REJOIN THE IMA MEMBER TO THE ORIGINAL IMA DET FOR A PERIOD OF 4 MONTHS. DURING THIS PERIOD, IMA OPSPONSORS SHOULD MAKE EVERY ATTEMPT TO REHIRE THE MOBILIZED MEMBER TO A VALID IMA BILLET WITHIN THE IMA DETACHMENT FOR THE REMAINDER OF THE ORIGINAL TOUR.

(5) IMA MEMBERS WHO WERE ADMINISTRATIVELY DROPPED TO THE IRR PRIOR TO MOBILIZATION MUST REAPPLY FOR OTHER AVAILABLE IMA OR SMCR UNIT BILLETS.

(6) RESERVISTS CAN SEARCH FOR IMA BILLETS, OTHER RESERVE DUTY OPPORTUNITIES, AND IDENTIFY THEIR AVAILABILITY FOR DUTY VIA THE RESERVE DUTY ON-LINE (RDOL) WEBSITE AT WWW.RDOL.MOL.USMC.MIL.

H. REQUESTS FOR TRANSFER TO THE IRR, INTERSERVICE AND INTERUNIT TRANSFER. REF A LIFTED THE RESTRICTIONS ON REQUESTING A TRANSFER. THIS POLICY CHANGE WAS MEANT ONLY TO APPLY TO NON-MOBILIZED RESERVISTS. ACTIVATED RESERVISTS CANNOT REQUEST A TRANSFER UNTIL THEY ARE DEACTIVATED.

I. ERRONEOUS STOP LOSS. NO MARINE WITH A RECC OF 1 SEP 2003 OR LATER SHOULD HAVE BEEN STOP LOSSED. IN CASES WHERE MARINES HAVE BEEN ERRONEOUSLY STOP LOSSED, COMMANDS WILL REESTABLISH THE MARINE'S ORIGINAL RECC BY REPORTING TTC 122 001.

6. RETIREMENT OR RESIGNATION DATE. MARINES WITH A TRANSFER TO FMCR, RETIREMENT OR RESIGNATION DATE EXTENDED FOR 12 MONTHS AND NOW DESIRE AN EARLIER DATE MUST REQUEST A NEW EFFECTIVE DATE TO CMC (MMSR-2) FOR TRANSFER TO FMCR OR RETIREMENTS AND TO CMC (MMSR-3) FOR RESIGNATIONS VIA MESSAGE OR LETTER. UNIT DIARY ENTRIES CANNOT BE USED. REQUESTS MAY BE FAXED TO 703-784-9834. CMC (MMSR) WILL MAKE THE APPROPRIATE UNIT DIARY ENTRY ONCE THE REQUEST IS RECEIVED.

7. OTHER ADMINISTRATIVE DETAILS. THESE INSTRUCTIONS ARE APPLICABLE TO BOTH THE ACTIVE AND RESERVE COMPONENTS.

A. PROPERLY DOCUMENTING STOP LOSS. MARINES WHO ARE PAST THEIR PLANNED SEPARATION DATE DO NOT HAVE CONTRACTUAL PAPERWORK TO PROVIDE AN EXPLANATION OF THE EXTENDED SERVICE LENGTH. BECAUSE OF THE IMPORTANCE OF MAINTAINING A HISTORICAL RECORD OF THEIR PERIOD OF STOP LOSS, THE FOLLOWING ACTIONS WILL BE TAKEN:
(1) PG 11 ENTRY.
(A) ACTIVE COMPONENT. DURING THE SEPARATION PROCESS, COMMANDS WILL MAKE THE FOLLOWING PG 11 ENTRY FOR THOSE MARINES KEPT ON ACTIVE DUTY PAST THEIR PLANNED SEPARATION DATE: "PER ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND STOP MOVE MARADMIN DATED 23 MAY 2003, SNM WAS ON STOP LOSS (COFGI) FOR THE PERIOD _____ TO _____. THIS REFLECTS XX DAYS ON ACTIVE DUTY PAST CONTRACT EAS/ECC. THIS ENTRY IS IN LIEU OF AN EXTENSION TO SNM'S CONTRACT." (WHERE XX REFLECTS THE TOTAL NUMBER OF DAYS THE MARINE SERVED PAST CONTRACT EAS/ECC.)
(B) RESERVE COMPONENT. "PER ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND STOP MOVE MARADMIN DATED 23 MAY 2003, RECC WAS EXTENDED XX DAYS FOR MOBILIZATION AND RESERVE TRANSITIONING, NO EXTENSION CONTRACT WAS PREPARED." (WHERE XX REFLECTS THE NUMBER OF
DAYS PAST THE ORIGINAL RECC THE MARINE WAS EXTENDED.)
(2) DD214 REMARK. PER ANNEX B OF REF E, IN THE PREPARATION OF THE DD214, THE FOLLOWING STATEMENT WILL BE TYPED IN THE REMARKS BLOCK:
(A) ACTIVE COMPONENT: "PER ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND STOP MOVE MARADMIN DATED 23 MAY 2003, SNM WAS ON STOP LOSS (COFGI) FOR THE PERIOD _____ TO _____. THIS REFLECTS XX DAYS ON ACTIVE DUTY PAST CONTRACT EAS/ECC. EXTENSION OF SERVICE WAS AT THE REQUEST AND FOR THE CONVENIENCE OF THE GOVERNMENT." (WHERE XX REFLECTS THE TOTAL NUMBER OF DAYS THE MARINE SERVED PAST CONTRACT EAS/ECC.)
(B) RESERVE COMPONENT: "PER ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND STOP MOVE MARADMIN DATED 23 MAY 2003, RECC WAS EXTENDED XX DAYS FOR MOBILIZATION AND RESERVE TRANSITIONING, NO EXTENSION CONTRACT WAS PREPARED. EXTENSION OF SERVICE WAS AT THE REQUEST AND FOR THE CONVENIENCE OF THE GOVERNMENT." (WHERE XX REFLECTS THE NUMBER OF DAYS PAST THE ORIGINAL RECC THE MARINE WAS EXTENDED.)
(3) DD256 REMARK.
(A) FOR NON-MOBILIZED MEMBERS OF THE SMCR AFFECTED BY STOP LOSS, THE UNIT WILL ADD THE FOLLOWING STATEMENT TO THEIR CERTIFICATE OF DISCHARGE: "PER ADMINISTRATIVE GUIDANCE FOR THE TERMINATION OF STOP LOSS AND STOP MOVE MARADMIN DATED 23 MAY 2003, SNM WAS STOP LOSSED FROM THEIR ORIGINAL RECC UNTIL THEIR DATE OF DISCHARGE. EXTENSION OF SERVICE WAS AT THE REQUEST AND FOR THE CONVENIENCE OF THE GOVERNMENT."
(B) FOR NON-MOBILIZED MEMBERS OF THE IMA AND IRR WHO ARE AFFECTED BY STOP LOSS, MCRSC WILL ADD THE FOLLOWING STATEMENT TO THEIR CERTIFICATE OF DISCHARGE: "PER ADMINISTRATIVE GUIDANCE FOR THE

TERMINATION OF STOP LOSS AND STOP MOVE MARADMIN DATED 23 MAY 2003, SNM WAS STOP LOSSED FROM THEIR ORIGINAL RECC UNTIL THEIR DATE OF DISCHARGE. EXTENSION OF SERVICE WAS AT THE REQUEST AND FOR THE CONVENIENCE OF THE GOVERNMENT."

B. LEAVE AWAITING SEPARATION. MARINES AFFECTED BY STOP LOSS ARE ENCOURAGED TO MAXIMIZE LEAVE PRIOR TO SEPARATION.

(1) ACTIVE COMPONENT MARINES. LEAVE WILL BE MANAGED PER REFS D AND E. MARINES HAVE THREE OPTIONS IN USING THE LEAVE THEY HAVE EARNED. FIRST, USE IT PRIOR TO SEPARATION. SECOND, SELL BACK A MAXIMUM OF 60 DAYS OF LEAVE. THIRD, COMBINE THESE TWO OPTIONS. FOR INSTANCE, A MARINE WITH A POSITIVE LEAVE BALANCE OF 50 DAYS MAY ELECT TO TAKE 30 DAYS AS SEPARATIONS LEAVE AND SELL BACK THE REMAINING 20 DAYS (AS LONG AS THE MARINE HAS NOT PREVIOUSLY SOLD MORE THAN 40 DAYS).

(2) RESERVE COMPONENT MARINES. RESERVE MARINES MAY CHOOSE TO SELL BACK OVER 60 DAYS OF LEAVE. THIS PROVISION APPLIES EVEN IF THE RESERVE MARINE HAS SOLD BACK 60 DAYS OF LEAVE EARNED FROM PREVIOUS ACTIVE DUTY PERIODS OF SERVICE.

C. REENLISTMENTS

(1) FIRST TERM MARINES. MARINES WITH A PLANNED SEPARATION DATE DURING FY03 SHOULD CONTINUE TO PURSUE AVAILABLE REENLISTMENT OPPORTUNITIES DURING FY03.

(2) CAREER MARINES. CAREER MARINES WHO DESIRE TO REENLIST WILL FOLLOW ESTABLISHED PROCEDURES IN EXERCISING THEIR REENLISTMENTS.

D. INCOME TAXES. MARINES ARE REMINDED THAT THEY MUST FILE THEIR 2002 INCOME TAXES WITHIN 180 DAYS OF LEAVING THE COMBAT ZONE OR HOSTILE FIRE AREA. THERE ARE SOME EXCEPTIONS TO THIS IRS POLICY. FOR INSTANCE, MARINES WHO HAVE BEEN HOSPITALIZED DUE TO INJURY IN A COMBAT ZONE MAY REQUEST FURTHER FILING DELAY. MARINES WITH QUESTIONS SHOULD CHECK WITH THEIR LOCAL LEGAL OFFICE.

E. PRESEPARATION COUNSELING AND PHYSICALS. ALL SEPARATING MARINES WILL ATTEND REQUIRED SEPARATIONS COUNSELING CLASSES AND RECEIVE THE APPROPRIATE PHYSICAL EXAMINATION. SPECIFIC QUESTIONS ON THE REQUIREMENTS FOR PRESEPARATION COUNSELINGS SHOULD BE DIRECTED TO THE LOCAL TRANSITION ASSISTANCE PROGRAM MANAGER. SPECIFIC QUESTIONS ON THE REQUIREMENTS FOR MEDICAL AND DENTAL EXAMINATIONS SHOULD BE DIRECTED TO THE LOCAL MILITARY CARE PROVIDER.

8. THIS MARADMIN APPLIES TO THE TOTAL FORCE.//

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 9 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington DC 20510-6018

Dear Mr. Chairman:

This report is provided to the Committee on Armed Services of the Senate and House as directed in section 518 of the Joint Explanatory Statement of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009. The committee requested the Secretary of the Navy to conduct a study to analyze the policies and procedures used by the Marine Corps Reserve during fiscal year 2001 through 2008 governing the assignment of members of the Marine Corps Reserve in the Individual Ready Reserve.

The Marine Corp concluded the study of policies and procedures in March of 2009. The attached report provides the results of the study that address elements required by the committee language concerning the Marine Corps Personnel policies.

A similar letter has been sent to Chairmens Skelton, Levin, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower & Reserve Affairs)
Acting

Enclosure:
As stated

cc:
The Honorable C.W. Bill Young
Ranking Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 9 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington DC 20510-6028

Dear Mr. Chairman:

This report is provided to the Committee on Armed Services of the Senate and House as directed in section 518 of the Joint Explanatory Statement of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009. The committee requested the Secretary of the Navy to conduct a study to analyze the policies and procedures used by the Marine Corps Reserve during fiscal year 2001 through 2008 governing the assignment of members of the Marine Corps Reserve in the Individual Ready Reserve.

The Marine Corp concluded the study of policies and procedures in March of 2009. The attached report provides the results of the study that address elements required by the committee language concerning the Marine Corps Personnel policies.

A similar letter has been sent to Chairmens Skelton, Murtha, and Levin. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower & Reserve Affairs)
Acting

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Ranking Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 9 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington DC 20510-6050

Dear Mr. Chairman:

This report is provided to the Committee on Armed Services of the Senate and House as directed in section 518 of the Joint Explanatory Statement of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009. The committee requested the Secretary of the Navy to conduct a study to analyze the policies and procedures used by the Marine Corps Reserve during fiscal year 2001 through 2008 governing the assignment of members of the Marine Corps Reserve in the Individual Ready Reserve.

The Marine Corp conducted the study of policies and procedures in March of 2009. The attached report provides the results of the study that address elements required by the committee language concerning the Marine Corps Personnel policies.

A similar letter has been sent to Chairmens Skelton, Murtha, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower & Reserve Affairs)
Acting

Enclosure:
As stated

cc:
The Honorable John S. McCain
Ranking Member

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 9 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington DC 20510-6035

Dear Mr. Chairman:

This report is provided to the Committee on Armed Services of the Senate and House as directed in section 518 of the Joint Explanatory Statement of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009. The committee requested the Secretary of the Navy to conduct a study to analyze the policies and procedures used by the Marine Corps Reserve during fiscal year 2001 through 2008 governing the assignment of members of the Marine Corps Reserve in the Individual Ready Reserve.

The Marine Corp concluded the study of policies and procedures in March of 2009. The attached report provides the results of the study that address elements required by the committee language concerning the Marine Corps Personnel policies.

A similar letter has been sent to Chairmens Levin, Murtha, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower & Reserve Affairs)
Acting

Enclosure:
As stated

cc:
The Honorable John M. McHugh
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 6 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, Section 1013, directed the Secretary of the Navy to submit a report to the congressional defense committees on the sale and disposal of vessels over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register. The enclosed report provides the disposal plan for the five Forrestal Class and Kitty Hawk Class aircraft carriers that meet these criteria. The report also provides the estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of such vessels. The Maritime Administration has no vessels in its inventory that are over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 6 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, Section 1013, directed the Secretary of the Navy to submit a report to the congressional defense committees on the sale and disposal of vessels over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register. The enclosed report provides the disposal plan for the five Forrestal Class and Kitty Hawk Class aircraft carriers that meet these criteria. The report also provides the estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of such vessels. The Maritime Administration has no vessels in its inventory that are over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 06 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, Section 1013, directed the Secretary of the Navy to submit a report to the congressional defense committees on the sale and disposal of vessels over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register. The enclosed report provides the disposal plan for the five Forrestal Class and Kitty Hawk Class aircraft carriers that meet these criteria. The report also provides the estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of such vessels. The Maritime Administration has no vessels in its inventory that are over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 0 6 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, Section 1013, directed the Secretary of the Navy to submit a report to the congressional defense committees on the sale and disposal of vessels over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register. The enclosed report provides the disposal plan for the five Forrestal Class and Kitty Hawk Class aircraft carriers that meet these criteria. The report also provides the estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of such vessels. The Maritime Administration has no vessels in its inventory that are over 50,000 tons light ship displacement that have been stricken from the Naval Vessel Register.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

REPORT TO CONGRESS

REPORT ON PLAN FOR DISPOSAL OF CERTAIN VESSELS STRICKEN FROM THE NAVAL VESSEL REGISTER (NVR)

Prepared by:
Naval Sea Systems Command

April 2009

REPORT ON PLAN FOR DISPOSAL OF CERTAIN VESSELS STRICKEN FROM THE NAVAL VESSEL REGISTER (NVR)

I. Introduction

Pursuant to Section 1013 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (Public Law 110-417), the Secretary of the Navy shall report to the congressional defense committees on the plan for the sale and disposal of each vessel over 50,000 tons light ship displacement stricken from the Naval Vessel Register (NVR) and the estimated contribution to the domestic market for steel and other metals from the scrapping of such vessels. Specifically, Section 1013 stated:

> *Not later than 180 days after the date of the enactment of this Act, the Secretary of the Navy, in consultation with the Administrator of the Maritime Administration, shall submit to the congressional defense committees a report containing –*
>
> *(1) a plan for the sale and disposal of each vessel over 50,000 tons light ship displacement stricken from the Naval Vessel Register but not yet disposed of by the Navy or the Maritime Administration; and*
>
> *(2) the estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of such vessels.*

The Navy remains committed to the proper disposal of its inactive ships stricken from the NVR. In January 2001 and August 2001 reports to Congress, the Navy advised that it was "committed to reducing and eliminating any environmental risks posed by its inactive ships, and to reduce the size of the inactive ship inventory in the methods most advantageous to the Navy." The Fiscal Year 2002 Senate Armed Services Committee Report 107-62 of September 12, 2001 advised, "The Committee expects the Secretary of the Navy to remain committed to reducing and eliminating any environmental risks posed by the Department's inactive ships, and to reduce the size of inactive fleet in the manner most advantageous to the Navy."

II. Executive Summary

The Navy has successfully achieved a net reduction of its inventory of conventionally-powered inactive ships from a high of 197 in 1997 to a total of 59 ships as of March 1, 2009. Of the current inventory of 59 ships, 36 are in various hold categories[1] and 23 are pending disposal. Among the 59 inactive ships in the Navy's inventory, only five are greater than 50,000 tons light ship displacement and have been struck from the NVR. These are Forrestal Class and Kitty Hawk Class aircraft carriers which are listed in section III of this report. Two of these ships are in a donation hold category and three are pending disposal. The Maritime Administration has no vessels in its inventory that are over 50,000 tons light ship displacement and stricken from the NVR.

The estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of each Forrestal and Kitty Hawk Class aircraft carrier is 39,957 long tons, as detailed in Table 1 of this report.

---

[1] Inactive ships in various hold categories include 9 ships retained for possible future reactivation or other special purpose, 3 ships held as logistic support assets for stripping of equipment and parts, 15 ships held for potential foreign military sales transfer, and 9 ships held for potential donation transfer as a public museum or memorial.

There are significant challenges associated with the dismantling of inactive conventionally-powered aircraft carriers. These include:

- The absence of ship dismantling facilities on the west coast,
- The absence of commercial dry-dock facilities on the west coast capable of docking a Forrestal Class aircraft carrier,
- The absence of existing capabilities for ship dismantling at commercial shipyards on the east and gulf coasts with dry-docks capable of docking a Forrestal Class aircraft carrier, and
- Classified structural hull details requiring a national industrial security program prescribing requirements, restrictions, and other safeguards necessary to prevent unauthorized disclosure of classified information.

The Navy is accomplishing the environmental preparations for sinking the ex-FORRESTAL (AVT 59) as an artificial reef and developing a plan for removal of regulated polychlorinated biphenyl (PCB) containing materials. The Navy has also advertised the ex-SARATOGA (CV 60) and ex-RANGER (CV 61) as available for donation transfer as ship museums/memorials.

III. Listing of vessels subject to Section 1013 report requirement

The Maritime Administration has no vessels in its inventory that are over 50,000 tons light ship displacement and stricken from the NVR.

The Navy's inventory of vessels over 50,000 tons light ship displacement and stricken from the NVR but not yet disposed of includes:

- Ex-FORRESTAL (AVT 59, ex-CV 59) aircraft carrier
    - Light ship displacement: 59,468 tons
    - Stricken from the NVR September 11, 1993
    - Storage location: Naval Station Newport, RI
    - Current disposition: Disposal
- Ex-SARATOGA (CV 60) aircraft carrier
    - Light ship displacement: 61,235 tons
    - Stricken from the NVR August 20, 1994
    - Storage location: Naval Station Newport, RI
    - Current disposition: Donation Hold
- Ex-RANGER (CV 61) aircraft carrier
    - Light ship displacement: 60,787 tons
    - Stricken from the NVR March 8, 2004
    - Storage location: Naval Inactive Ship On-Site Maintenance Office, Bremerton, WA
    - Current disposition: Donation Hold

- Ex-INDEPENDENCE (CV 62) aircraft carrier
    - Light ship displacement: 60,059 tons
    - Stricken from the NVR March 8, 2004
    - Storage location: Naval Inactive Ship On-Site Maintenance Office, Bremerton, WA
    - Current disposition: Disposal
- Ex-CONSTELLATION (CV 64) aircraft carrier
    - Light ship displacement: 61,981 tons
    - Stricken from the NVR December 2, 2003
    - Storage location: Naval Inactive Ship On-Site Maintenance Office, Bremerton, WA
    - Current disposition: Disposal

IV. Conventionally-powered inactive ship disposal strategies

The Navy has continued to execute a strategy of multiple ship disposal methodologies to reduce the size of the inactive ship inventory, including foreign military sale transfers, transfers to other federal agencies, donation transfers for museum/memorial use, experimental/target use, and domestic ship dismantling.

In addition, 10 U.S.C 7306b provided Navy the authority to transfer vessels stricken from the NVR directly to a State, Commonwealth, possession of the United States, municipal corporation, or political subdivision for use as an artificial reef. In May 2006, the Navy successfully completed the environmental preparation and sinking as an artificial reef of the ex-ORISKANY (CV 34), a 32,519 ton light ship displacement Hancock Class aircraft carrier.

In order to achieve a greater reduction in the overall size of the inactive ship inventory, the Navy's ship disposal strategy has focused on surface combatant ships (i.e., cruisers, destroyers, and frigates), amphibious and auxiliary type ships, and other vessels. In 1999, the Navy awarded four (4) five-year Indefinite Delivery, Indefinite Quantity (IDIQ) contracts for dismantling of surface combatants, amphibious and auxiliary ships, minesweepers, patrol gunboats, and diesel submarines. In 2005, the Navy awarded three (3) five-year IDIQ contracts for dismantling of the same type of ships. Under these contracts, 58 ships have been successfully dismantled in the United States. Aircraft carriers were not included within the scope of these contracts as the facility requirements for dismantling aircraft carriers would have significantly restricted the available competition and impaired the progress necessary in disposing of the larger numbers of smaller vessels. This strategy combined with other ship disposal methodologies has resulted in a net reduction of the inventory of conventionally-powered inactive ships from a high of 197 in 1997 to a total of 59 ships as of March 1, 2009.

V. Conventionally-powered inactive aircraft carrier disposal strategies

Due to security and classification issues, the disposition of inactive aircraft carriers currently in the inactive ship inventory is limited to donation transfer for use as a public museum or

memorial, domestic ship dismantling, and sinking as an artificial reef. The structural details of the hull of Forrestal and Kitty Hawk Class aircraft carriers are classified. Disposal by donation, dismantling, or artificial reefing presents additional challenges and costs that do not exist with surface combatants, amphibious and auxiliary ships, and other conventionally-powered vessels.

If a Forrestal or Kitty Hawk Class aircraft carrier is donated to a U.S. municipality or non-profit organization for use as a museum/memorial, the Navy would have little or no control over public access to currently classified structural details in the ship. Thus, the Navy would have to accomplish hull security mitigation actions to remove, enclose or permanently cover sensitive areas from public access for the purpose of preventing disclosure of critical classified structures. This work includes permanently securing access to side hull tanks, permanently securing the majority of lower deck hatches, concealing deck plate thickness on unsecured lower deck hatches with coaming and concrete, and applying a protective coating over magazine and machinery space bulkheads.

If a Forrestal or Kitty Hawk Class aircraft carrier is sunk as an artificial reef, minimal hull security mitigation actions would be necessary if the ship is sunk in water depths of at least 450 feet. If a Forrestal or Kitty Hawk Class aircraft carrier is dismantled, the U.S. ship dismantling yard would be required to implement a national industrial security program prescribing requirements, restrictions, and other safeguards necessary to prevent unauthorized disclosure of classified information.

VI. Estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of Forrestal and Kitty Hawk Class Aircraft Carriers

Table 1 provides the estimated weight in long tons[2] of scrap metals expected to be generated during ship dismantling, based on weight reports for ex-FORRESTAL retrieved from the National Archives and Records Administration.

Ferrous Steel	31,473
High Tensile Strength Steel	6,974
Aluminum	662
Copper	452
Brass	211
Copper-Nickel	185
TOTAL (long tons)	39,957

Table 1 – Estimated weights (long tons) of scrap metals from dismantling of a Forrestal or Kitty Hawk Class Aircraft Carrier

The difference between the light ship displacement and the total of the estimated weights of scrap metals generated from ship dismantling is attributed to solid waste, furnishings, insulation materials, and hazardous wastes.

[2] One long ton equals 2,240 pounds

VII. The plan for disposal of ex-FORRESTAL (AVT 59)

Ex-FORRESTAL was decommissioned and stricken from the NVR on September 11, 1993. In May 1997, ex-FORRESTAL was designated as available for donation as a static public museum or memorial. The initial donation interest was from the USS Forrestal Sea, Air, Space Museum, Inc. of Tampa, FL. However, this organization withdrew in 1999. The only other interest was from the USS Forrestal Museum, Inc., who proposed establishing the ship as a museum in Baltimore, but was not able to obtain any commitments from the City of Baltimore or the State of Maryland for suitable berthing. In December 2003, the ship was redesignated for disposal.

Based on the Navy's success in environmentally preparing the ex-ORISKANY (CV 34) as an artificial reef, the Navy began in January 2006 to perform the environmental remediation of ex-FORRESTAL in accordance with the U.S. Environmental Protection Agency's (EPA) *Best Management Practices for Preparing Vessels for Use as Artificial Reefs* (BMP). All work required by the BMPs has been completed except for the removal of solid shipboard materials containing regulated concentrations of polychlorinated biphenyls (PCBs). The Navy is currently developing a plan for PCB removals.

VIII. The plan for disposal of ex-SARATOGA (CV 60)

Ex-SARATOGA was decommissioned and inactivated at Mayport, FL on August 20, 1994, and stricken from the NVR on the same day. The ship was designated for donation transfer as a museum. The USS Saratoga Museum Foundation, Inc. submitted a ship donation application to the Navy on September 30, 2008, however it was found to not fully meet the Navy's minimum requirements for donation. In order to provide the Foundation with an opportunity to improve its application, a list of 48 questions relating to the Business/Financial, Mooring, Maintenance, and Tow Plans was provided to the Foundation on February 27, 2009 with a deadline of June 30, 2009 for its response. The disposition of ex-SARATOGA remains for potential donation transfer.

IX. The plan for disposal of ex-RANGER (CV 61)

Ex-RANGER was decommissioned on July 10, 1993 and inactivated for long-term preservation as a retention asset for possible future reactivation. On March 8, 2004, the ship was stricken from the NVR and designated for donation transfer as a museum/memorial due to interest from the USS Ranger Museum Foundation. The disposition of ex-RANGER remains for potential donation transfer.

X. The plan for disposal of ex-INDEPENDENCE (CV 62) and ex-CONSTELLATION (CV 64)

Ex-INDEPENDENCE was decommissioned on September 30, 1998 and stricken from the NVR on March 8, 2004. Ex-CONSTELLATION was decommissioned on August 6, 2003 and stricken from the NVR on December 2, 2003. Both ships are located in Bremerton, WA and are designated for dismantling.

Opportunities for ship dismantling facilities are challenged on the west coast as there are no existing facilities for ship dismantling, nor are there any commercial dry-docks on the west coast large enough to dock a Forrestal Class aircraft carrier. While the Navy accomplishes the

dismantling of its inactive nuclear powered ships and submarines at Puget Sound Naval Shipyard in Bremerton, WA, the one carrier-capable certified drydock that is large enough for tank and hull work is dedicated for active aircraft carrier maintenance and repairs. Further, there is insufficient work force available, both private and public, to support additional ship dismantling work without impact to scheduled active carrier and submarine repair availabilities. There are five commercial firms on the east and gulf coasts that have dry-docks capable of docking a Forrestal Class aircraft carrier, all of which are dedicated to new ship construction and ship repair.

The ex-INDEPENDENCE and ex-CONSTELLATION will continue to be maintained in a safe storage condition pending completion of the disposal of the two aircraft carriers in Newport, RI.

XI. Navy's Near-Term Disposition Goals

Given the disposal challenges regarding the three inactive conventionally-powered aircraft carriers in Bremerton, WA, the Navy's near-term goals are the removal and disposal of the ex-FORRESTAL and ex-SARATOGA from Newport, RI.

XII. Summary

The estimated contribution to the domestic market for steel and other metals that might be made from the scrapping of each Forrestal and Kitty Hawk Class aircraft carrier is 39,957 long tons, as detailed in Table 1 of this report.

However, there are significant challenges associated with dismantling of inactive conventionally-powered aircraft carriers; 1) the absence of ship dismantling facilities on the west coast, 2) the absence of commercial dry-dock facilities on the west coast capable of docking a Forrestal Class aircraft carrier, 3) the absence of existing capabilities for ship dismantling at commercial shipyards on the east and gulf coasts with dry-docks capable of docking a Forrestal Class aircraft carrier, and 4) classified structural hull details requiring a national industrial security program prescribing requirements, restrictions, and other safeguards necessary to prevent unauthorized disclosure of classified information.

The Navy will investigate the cost and viability of complete dismantling of Forrestal and Kitty Hawk Class aircraft carriers in U.S. shipyards with the necessary facilities to dismantle such ships in conformance with all environmental and occupational safety regulations, and with a national industrial security program prescribing requirements, restrictions, and other safeguards necessary to prevent unauthorized disclosure of classified structural details of the hulls.

THE ASSISTANT SECRETARY THE NAVY
(FINANCIAL MANAGEMENT AND COMPTROLLER)
1000 NAVY PENTAGON
WASHINGTON, DC 20350-1000

ACTION MEMO

March 27, 2009

FOR: SECRETARY OF THE NAVY, ACTING

FROM: John W. McNair, ASN (FM&C), Acting

SUBJECT: Reimbursement of Expenses for Certain Mess Operations

- SECNAV, request you sign the letters at TAB A and forward to the appropriate Congressional Committees.

- The Fiscal Year 2009 National Defense Authorization Act House Committee Report (110-652) requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels.

RECOMMENDATION: Sign TAB A and forward to Congressional Committees

ATTACHMENTS: None

Prepared by: Ms. Sarah McDole, FMB-132, (703) 697-1014

31 MAR 09

AASN
RELEASE

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 31, 2009

The Honorable Joseph R. Biden, Jr.
President of the Senate
Washington, DC 20510-0001

Dear Mr. President:

Section 1014 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels to:

a. Members of nongovernmental organizations and officers or employees of host and foreign nations when participating in or providing support to United States civil-military operations.

b. Foreign national patients treated on Naval vessels during the conduct of United States civil-military operations, and their escorts.

As of December 31, 2008, a total of $51,000 was expended to pay for meals sold to authorized personnel during the following United States civil-military operation:

- USS KEARSARGE, Continuing Promise 2008/2009.

Please let me know if I can be of further assistance. A copy of this letter is also being provided to the Speaker of the House and Chairmen Skelton, Inouye, Murtha, and Levin.

Sincerely,

BJ Penn
Acting

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 31, 2009

The Honorable Nancy Pelosi
Speaker of the House
of Representatives
Washington, D.C. 20515-0508

Dear Madam Speaker:

Section 1014 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels to:

a. Members of nongovernmental organizations and officers or employees of host and foreign nations when participating in or providing support to United States civil-military operations.

b. Foreign national patients treated on Naval vessels during the conduct of United States civil-military operations, and their escorts.

As of December 31, 2008, a total of $51,000 was expended to pay for meals sold to authorized personnel during the following United States civil-military operation:

- USS KEARSARGE, Continuing Promise 2008/2009

Please let me know if I can be of further assistance. A copy of this letter is also being provided to the President of the Senate and Chairmen Skelton, Inouye, Murtha, and Levin.

Sincerely,

BJ Penn
Acting

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 31, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 1014 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels to:

a. Members of nongovernmental organizations and officers or employees of host and foreign nations when participating in or providing support to United States civil-military operations.

b. Foreign national patients treated on Naval vessels during the conduct of United States civil-military operations, and their escorts.

As of December 31, 2008, a total of $51,000 was expended to pay for meals sold to authorized personnel during the following United States civil-military operation:

- USS KEARSARGE, Continuing Promise 2008/2009

Please let me know if I can be of further assistance. A copy of this letter is also being provided to the President of the Senate, the Speaker of the House, and Chairmen Skelton, Inouye, and Murtha.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 31, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 1014 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels to:

a. Members of nongovernmental organizations and officers or employees of host and foreign nations when participating in or providing support to United States civil-military operations.

b. Foreign national patients treated on Naval vessels during the conduct of United States civil-military operations, and their escorts.

As of December 31, 2008, a total of $51,000 was expended to pay for meals sold to authorized personnel during the following United States civil-military operation:

- USS KEARSARGE, Continuing Promise 2008/2009

Please let me know if I can be of further assistance. A copy of this letter is also being provided to the President of the Senate, the Speaker of the House, and Chairmen Levin, Inouye, and Murtha.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 31, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 1014 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels to:

a. Members of nongovernmental organizations and officers or employees of host and foreign nations when participating in or providing support to United States civil-military operations.

b. Foreign national patients treated on Naval vessels during the conduct of United States civil-military operations, and their escorts.

As of December 31, 2008, a total of $51,000 was expended to pay for meals sold to authorized personnel during the following United States civil-military operation:

- USS KEARSARGE, Continuing Promise 2008/2009

Please let me know if I can be of further assistance. A copy of this letter is also being provided to the President of the Senate, the Speaker of the House, and Chairmen Skelton, Inouye, and Levin.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 31, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 1014 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 requires an annual report on the use of the authority granted therein to pay for meals sold by messes for United States Navy and Naval Auxiliary vessels to:

a. Members of nongovernmental organizations and officers or employees of host and foreign nations when participating in or providing support to United States civil-military operations.

b. Foreign national patients treated on Naval vessels during the conduct of United States civil-military operations, and their escorts.

As of December 31, 2008, a total of $51,000 was expended to pay for meals sold to authorized personnel during the following United States civil-military operation:

- USS KEARSARGE, Continuing Promise 2008/2009

Please let me know if I can be of further assistance. A copy of this letter is also being provided to the President of the Senate, the Speaker of the House, and Chairmen Skelton, Murtha, and Levin.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

COORDINATION PAGE

Organization	Name/Phone	Date
FMBE	LCDR Joe Furco/ (703)692-6731	04 MAR 09
OLA	CDR Steve Barney/ (703)697-2776	13 MAR 09
FMB	Ms Sarah Mcdole/ (703)697-1056	11 MAR 09
DNS-6	Ms Suzanne Gonzales/ (703)614-8450	19 MAR 09
OLA	RADM Mike Miller/ (703)697-2776	30 MAR 09
SAL	CDR Gary Sharp/ (703) 697-6935	30 MAR 09

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 30 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report to the House and Senate Committees on Appropriations by April 30, 2009, on a plan for implementation of programs to provide opportunities and financial incentives for top performers at Naval Shipyards to receive four-year engineering degrees, executive management training certificates, and business school degrees. This is an interim response.

The Naval Sea Systems Command has actively engaged with all four Naval Shipyards and their respective local educational institutions and plans to develop a centralized Human Capital Strategy (HCS) based on the unique mission, workload, and workforce strategic needs of the Naval Shipyards. This integrated corporate workforce development plan will align to overall Department of the Navy, Department of Defense and federal civilian strategies. To that end, the Navy has initiated efforts with each of the four Naval Shipyards to review workforce development requirements and to craft proposed programs in concert with their local educational institutions as part of this HCS implementation. The Navy is also considering a pilot effort at one of the shipyards to determine the feasibility of the planned program to attract and retain top performers.

The Navy intends to complete this effort and provide a plan for implementation to the House and Senate Appropriations Committees no later than June 30, 2009.

A similar letter sent has been sent to Chairman Murtha. If I can be of further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 30 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report to the House and Senate Committees on Appropriations by April 30, 2009, on a plan for implementation of programs to provide opportunities and financial incentives for top performers at Naval Shipyards to receive four-year engineering degrees, executive management training certificates, and business school degrees. This is an interim response.

The Naval Sea Systems Command has actively engaged with all four Naval Shipyards and their respective local educational institutions and plans to develop a centralized Human Capital Strategy (HCS) based on the unique mission, workload, and workforce strategic needs of the Naval Shipyards. This integrated corporate workforce development plan will align to overall Department of the Navy, Department of Defense and federal civilian strategies. To that end, the Navy has initiated efforts with each of the four Naval Shipyards to review workforce development requirements and to craft proposed programs in concert with their local educational institutions as part of this HCS implementation. The Navy is also considering a pilot effort at one of the shipyards to determine the feasibility of the planned program to attract and retain top performers.

The Navy intends to complete this effort and provide a plan for implementation to the House and Senate Appropriations Committees no later than June 30, 2009.

A similar letter sent has been sent to Chairman Inouye. If I can be of further assistance, please let me know.

Sincerely,

Harvey C. Barnum, Jr.
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 12, 2009

The Honorable Daniel K. Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization Act Senate Committee Report (110-335) requires the Navy submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. After a comprehensive assessment of the causal factors and identification of a number of actions taken to improve ship material conditions and life cycle maintenance, the enclosed report on Surface Ship Maintenance and Material Condition is submitted.

Specifically, the report includes underway material inspection findings and trends of the Board of Inspection and Survey during 2003 through 2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and addresses the units' ability to self-assess and maintain material readiness. The report also includes the Navy's plan to maintain material readiness of the Littoral Combat Ship.

A similar letter has been sent to Chairmen Skelton, Levin, Murtha, and Obey. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 12, 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization Act Senate Committee Report (110-335) requires the Navy submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. After a comprehensive assessment of the causal factors and identification of a number of actions taken to improve ship material conditions and life cycle maintenance, the enclosed report on Surface Ship Maintenance and Material Condition is submitted.

Specifically, the report includes underway material inspection findings and trends of the Board of Inspection and Survey during 2003 through 2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and addresses the units' ability to self-assess and maintain material readiness. The report also includes the Navy's plan to maintain material readiness of the Littoral Combat Ship.

A similar letter has been sent to Chairmen Skelton, Inouye, Murtha, and Obey. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

cc:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 12, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization Act Senate Committee Report (110-335) requires the Navy submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. After a comprehensive assessment of the causal factors and identification of a number of actions taken to improve ship material conditions and life cycle maintenance, the enclosed report on Surface Ship Maintenance and Material Condition is submitted.

Specifically, the report includes underway material inspection findings and trends of the Board of Inspection and Survey during 2003 through 2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and addresses the units' ability to self-assess and maintain material readiness. The report also includes the Navy's plan to maintain material readiness of the Littoral Combat Ship.

A similar letter has been sent to Chairmen Skelton, Levin, Inouye, and Obey. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

cc:
The Honorable C.W. Bill Young
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 12, 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization Act Senate Committee Report (110-335) requires the Navy submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. After a comprehensive assessment of the causal factors and identification of a number of actions taken to improve ship material conditions and life cycle maintenance, the enclosed report on Surface Ship Maintenance and Material Condition is submitted.

Specifically, the report includes underway material inspection findings and trends of the Board of Inspection and Survey during 2003 through 2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and addresses the units' ability to self-assess and maintain material readiness. The report also includes the Navy's plan to maintain material readiness of the Littoral Combat Ship.

A similar letter has been sent to Chairmen Inouye, Levin, Murtha, and Obey. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

cc:
The Honorable John M. McHugh
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

March 12, 2009

The Honorable David Obey
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20510-6015

Dear Mr. Chairman:

The Fiscal Year 2009 National Defense Authorization Act Senate Committee Report (110-335) requires the Navy submit a report to the Congressional Defense Committees which addresses ship material condition and readiness. After a comprehensive assessment of the causal factors and identification of a number of actions taken to improve ship material conditions and life cycle maintenance, the enclosed report on Surface Ship Maintenance and Material Condition is submitted.

Specifically, the report includes underway material inspection findings and trends of the Board of Inspection and Survey during 2003 through 2008; analysis of downward trends and corrective actions; causes of ships found unfit for combat operations; and addresses the units' ability to self-assess and maintain material readiness. The report also includes the Navy's plan to maintain material readiness of the Littoral Combat Ship.

A similar letter has been sent to Chairmen Skelton, Inouye, Murtha, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

cc:
The Honorable Jerry Lewis
Ranking Member

REPORT TO CONGRESS

Ship Maintenance and Material Conditions

March 2009

Report on Ship Maintenance and Material Conditions

Requirement

The Senate Committee Armed Services Report (110-335), in accompaniment with the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 5658), contained the following direction:

The committee directs the Secretary of the Navy to submit a report to the congressional defense committees with the fiscal year 2010 budget, which addresses ship material condition and readiness. The report shall include underway material inspection findings and trends of the Board of Inspection and Survey during 2003-2008, with an analysis of the cause for any downward trends and the actions underway to improve upon these trends. Further, the report shall specifically address the factors surrounding any ships found to be seriously degraded or unfit for combat operations. The report shall also address the Navy's findings with regard to unit level ability to self-assess and maintain material condition readiness.

In view of the current emphasis by the Navy to reduce shipboard manning, the report shall include the Navy's plan for maintaining material readiness for the Littoral Combat Ship (LCS), which the Navy currently intends to deploy for extended durations. To support these extended deployments, the Navy intends to utilize rotating crews, consisting of substantially less than 50 percent of current combatant crew manning levels. The LCS plan shall include a description of maintenance requirements, performing organizations, budget requirements, and any consideration by the Navy to outsource LCS maintenance.

Executive Summary

Purpose

This report on Ship Maintenance and Material Conditions was drafted in response to the requirement of SASC report 110-335. Commander, U.S. Fleet Forces Command has compiled the data contained within this document based on analyses from Commander, Naval Surface Force (CNSF) and President, Board of Inspection and Survey (INSURV).

Overview

Present within this report are five distinctive ship status reporting categories.

1. ***INSURV:*** Over a five year period, spanning 2003-2008, one hundred and ninety one (191) surface ship INSURV inspections were conducted. This report will provide a detailed analysis of INSURV results through the collation of data and the associated results, by groups, providing insight into equipment and maintenance demonstrations that are customarily performed while ships are underway.

2. ***Ships Unfit or Seriously Degraded at INSURV:*** Addresses ship degradation issues identified through INSURV inspections. Approximately 10% of the inspected ships fall into this category. The results for the ships with numerous issues are indicative of the ship's leadership team not following procedures and policies and not practicing the basics of equipment maintenance and operation.

3. ***An Overview of Unit Level Ability to Self-Assess and Maintain Material Condition Readiness:*** Describes an increase in ships' Operational Tempo (OPTEMPO) in recent years, in conjunction with ever-increasing demand on ships force, and the impact these factors have had on material condition and readiness.

4. ***Improvements to the Engineered Requirements Process:*** Addresses how changes to the maintenance strategy over the last 10 years have impacted the overall maintenance condition of surface ships.

5. ***Littoral Combat Ship (LCS) Maintenance:*** There are inherent complexities with the LCS maintenance construct. This report provides insight into some of those unique complexities that have led to the development new maintenance philosophy approach called the Interim Support Plan (ISP).

Findings

Board of Inspection and Survey: During the past six years, the Board of Inspection and Survey has completed 191 inspections, an average of about 32 per year. The following chart provides a summary of the results. The passing grade is 0.8 on a scale of 0-1. The root causes of failures are ship leadership teams not following procedures and policies and not practicing the basics of equipment maintenance and operation.

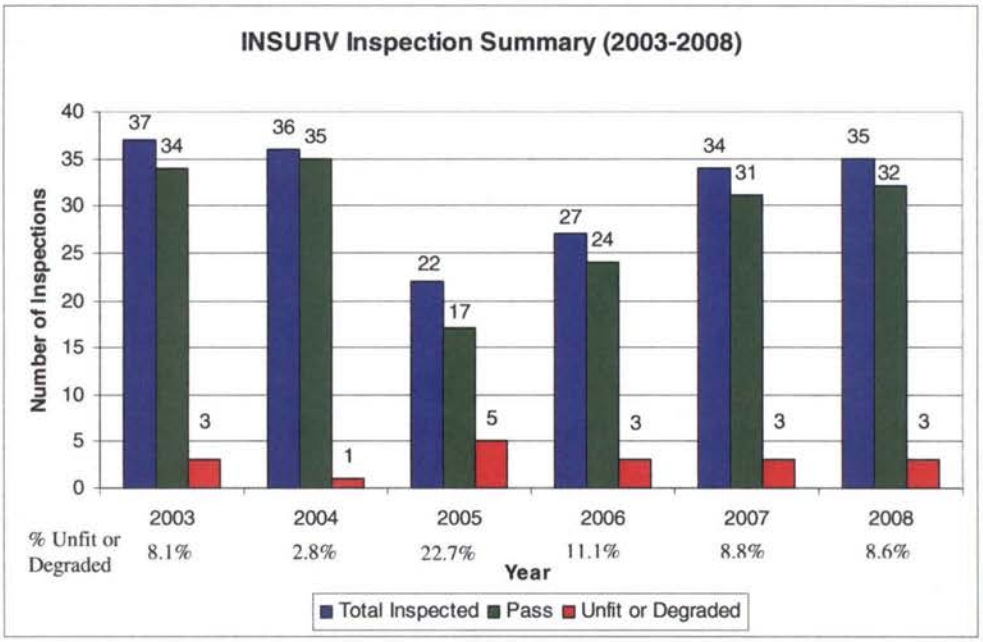


Figure 1

INSURV assigns grades to 29 different areas during each inspection.

- 8 areas are trending positively: damage control, ballasting, electrical, ahead reversal, astern reversal, mine warfare, mine hunting and mine sweeping.
- 16 areas are trending steady: auxiliary, steering, main propulsion, full power, anti submarine warfare, undersea warfare detect-to-engage, operations, anti-air warfare, weapons systems, gun demonstration, command and control, information systems, navigation, occupational health and safety, ventilation, and supply and habitability.
- 5 areas show with a general downward trend: deck, anchor, self-defense detect-to-engage, environmental protection, and aviation.

The positive trends are a result of increased training, assessments, and directed actions by the Commander Naval Surface Forces, Commander Naval Sea Systems Command and Fleet Maintenance and Training resource providers. The downward trend areas are a result of material, supervisory and operator deficiencies that are being addressed by the Force Commander as described in the body of the report.

Ships Unfit or Seriously Degraded: An analysis of ships identified as "fit," unlike their "unfit" or "seriously degraded" counterparts, generally revealed strong command leadership involvement, proper preparation for INSURV inspections using well-planned schedules, supported by maintenance and self-assessment capabilities. CNSF with support from CLASSRONs, as well as the Operational Fleet Commanders and the Regional Maintenance Centers, has made these key elements central to the Ships Force's preparations for an INSURV inspection with predictive results forthcoming.

Self-Assessment and Maintaining Material Condition: In recent years, several changes within the Surface Warfare Enterprise (SWE), designed to improve cost efficiency through manpower,

training, and maintenance resource reductions, may have negatively affected individual ships' ability to self-assess and to maintain readiness, especially in the areas of Force manpower, training and technical competency. These areas are being reassessed and are discussed throughout the report.

Material status reviews revealed a need to take focused corrective actions to reverse the trend and improve ship readiness. Areas identified as needing improvement are enlisted manpower, training, and officer training and Integrated Class Maintenance Plans (ICMP). With technical support from Regional Maintenance Centers and Commander Naval Sea Systems Command, along with analytical support from Navy Total Force, a number of actions, detailed in the body of the report, such as increased training and more rigorous attention to life cycle maintenance planning, have been indentified and are being implemented. These changes have been designed to enable ships to do better self-assessment, to provide additional oversight, and to maintain long term material condition.

Improvements to the Engineered Requirements Process: In 1999, CNSF implemented a change in maintenance philosophy from "Engineered Operating Cycle" to a "Progressive" strategy in order to reduce the time spent in CNO availabilities. Some of the work previously scheduled for completion during major availabilities moved into Continuous Maintenance Availabilities (CMAV). The desired result from the change was an increase in operational availability for combatant commanders.

However, the change has also resulted in a greater focus on short term, get-the-ship-to-sea maintenance at the expense of structural and corrosion preventative maintenance tasks that enable long hull life. Refinements to the maintenance strategy, including additional assessments, finite element computer modeling, establishment of the Surface Ship Life Cycle Management Activity (SSLCM) to instill more rigor into the maintenance planning process, increased attention to life cycle maintenance, increased oversight by class squadrons, additional engineering requirements development, and increases in duration and work assigned to major availabilities are being implemented to enable ships to reach their full design hull life.

The following drawing depicts a typical section of the DDG 51 life cycle as of FY 99, before the change in maintenance philosophy.

Notes for Figure 2:

(1) Man-days (MD) are in thousands (K) and durations in months (M).

(2) Types of availabilities: Docking Selected Restricted Availability (DSRA), Selected Restricted Availability (SRA), and Continuous Maintenance (CM).

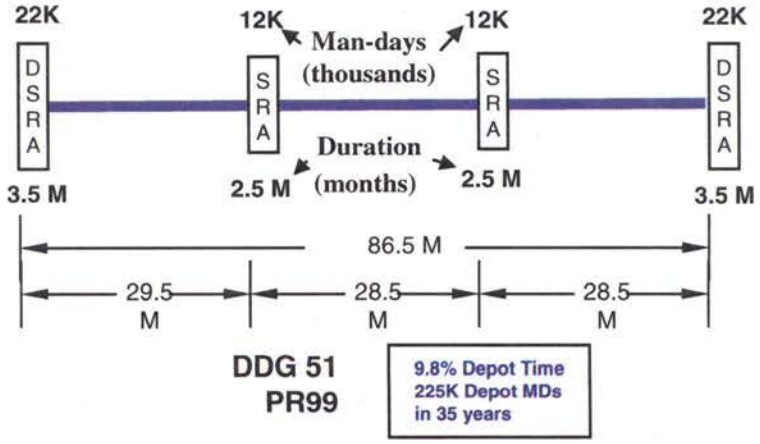


Figure 2

In comparison, the below drawing depicts a typical section of the DDG 51 life cycle as of FY 09, after the change in the maintenance philosophy.

Notes for Figure 3:

(1) Man-days (MD) are in thousands (K) and durations in months (M).

(2) Types of availabilities: Docking Selected Restricted Availability (DSRA), Selected Restricted Availability (SRA), and Continuous Maintenance (CM).

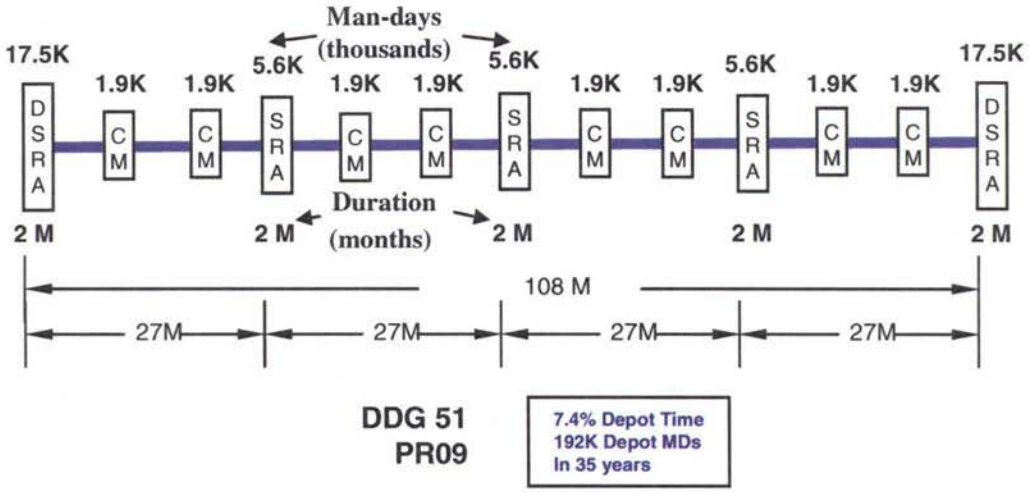


Figure 3

Over a 35 year life, the "Progressive" strategy provides an additional 10 months of operational availability.

Littoral Combat Ship (LCS): The LCS is a new U. S. Navy warship that has been developed using an accelerated schedule and spiral development of new capability. There are two different hull forms and three different mission package modules that allow the ship to perform a variety of specialized missions.

The ships have small crews that are sized for maximum operational efficiency, without the traditional allowances for maintenance specialists or under instruction trainees. Different designs by different shipbuilders, commercial grade equipment, reduced manpower, rotational crews and a strong reliance upon shore infrastructure have altered the traditional ship maintenance philosophy.

For USS FREEDOM (LCS 1) (Lockheed Martin) and USS INDEPENDENCE (LCS 2) (General Dynamics), an Interim Support Plan (ISP) has been implemented such that nearly all preventive, corrective and facilities (deep cleaning) maintenance is outsourced. As the Navy operates these ships, part of the contract responsibility is to collect and analyze maintenance related data to enable the Navy to finalize the future strategy for LCS maintenance.

1. INSURV Results 2003 - 2008

From 2003-2008, the Board of Inspection and Survey (INSURV) performed one hundred and ninety-one (191) surface ship inspections. INSURV results have been grouped into equipment and demonstrations categories that are performed underway. Overall trends are positive with some categories requiring further attention. Figures 4-8 depict inspection results from 2003-2008. The Vertical Axis represents an Equipment Operating Condition (EOC) score given to each ship. 1.0 represents a perfect score. Scores between .80 and 1.0 are considered Satisfactory, between .60 and .79 are Degraded and between 0.0 and .59 are Unsatisfactory.

Scoring for INSURV inspections is based on clear criteria that have been developed with technical rigor. These criteria are uniformly applied to enable direct comparisons between ships of various designs. Since November 2003, each functional area or demonstration is scored using the same grading criteria sheets for each inspection. If grading criteria changes are made, the Fleet is advised. Components within each functional area are graded and rolled-up using a weighted algorithm that generates an overall functional area score.

Trends in inspection areas

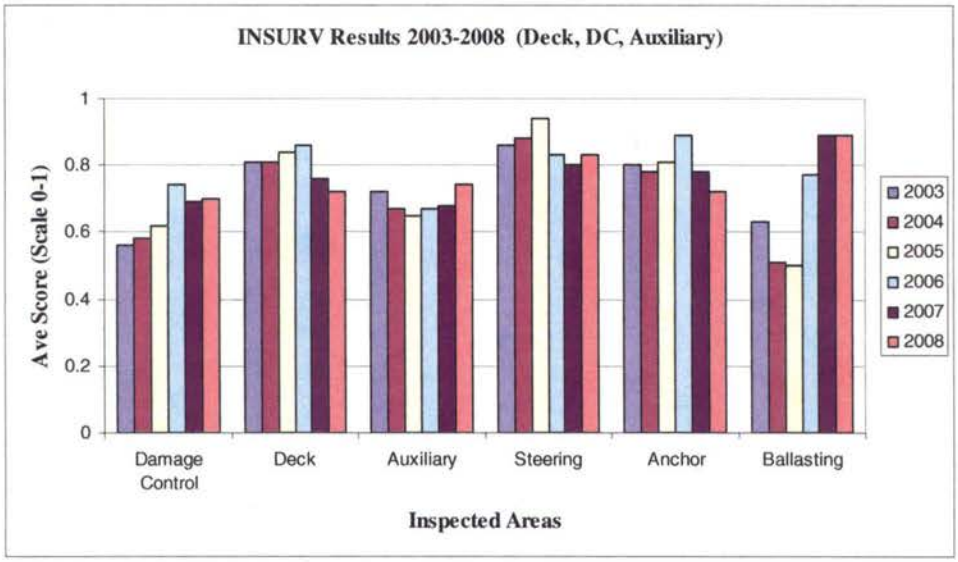


Figure 4

- Deck is showing a downward trend. Reports from INSURV inspectors attribute the trend to declining deckplate knowledge and poor performance of Preventive Maintenance System (PMS) maintenance requirements. At the beginning of FY07, the Naval Education and Training Command (NETC) added an A school for Boatswain Mates (BM). At the beginning of FY08 it also added Surface Common Core to the training path for surface ship personnel. This 12-day addition to the curriculum focuses on the Maintenance and Material Management (3M) system including PMS and basic deck seamanship,

CNSF has also initiated a pilot program on ships home ported in San Diego that evaluates and then trains ships force in assessing anchor machinery and ground tackle equipment. While the pilot program is in its infancy with only two ships completed, early feedback from trainers and ship's force indicates that the training is worthwhile and producing improvements.

- The Anchor underway demonstration grades are declining, while anchor machinery material grades have been fairly consistent between .60 and .72 with no established trend. Some of the declining anchor demonstration grades are due to several instances in which anchor chain components did not meet maintenance specifications. In these cases the demo was not conducted and scored a zero. CNSF has initiated a pilot program on ships home ported in San Diego that evaluates and then trains ships force in assessing anchor machinery and ground tackle equipment.

- Ballasting demonstration improvements are the result of increased attention to the conduct of this specialized capability by the amphibious squadrons and ship's force.

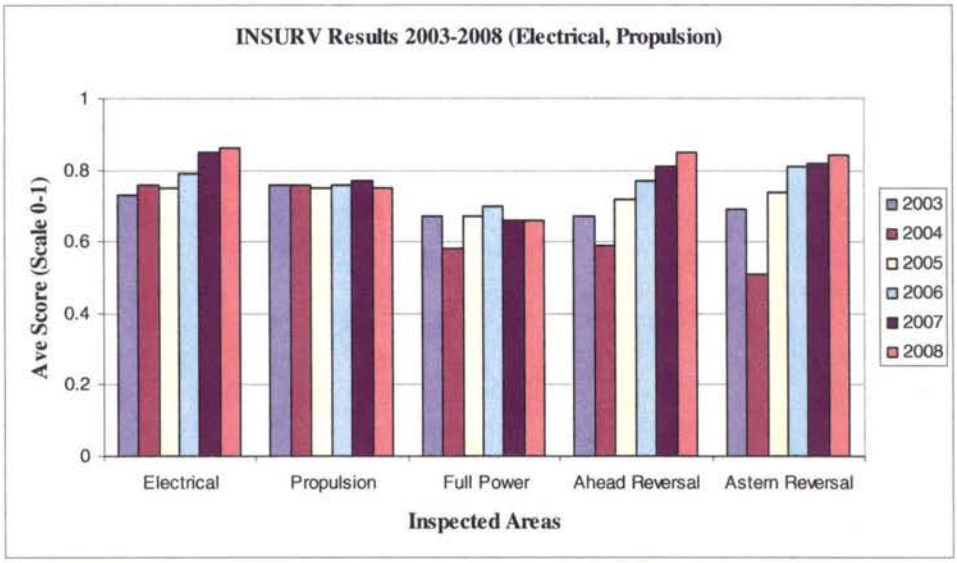


Figure 5

- The electrical (EL) and main propulsion (MP) categories overall are steady or improving.

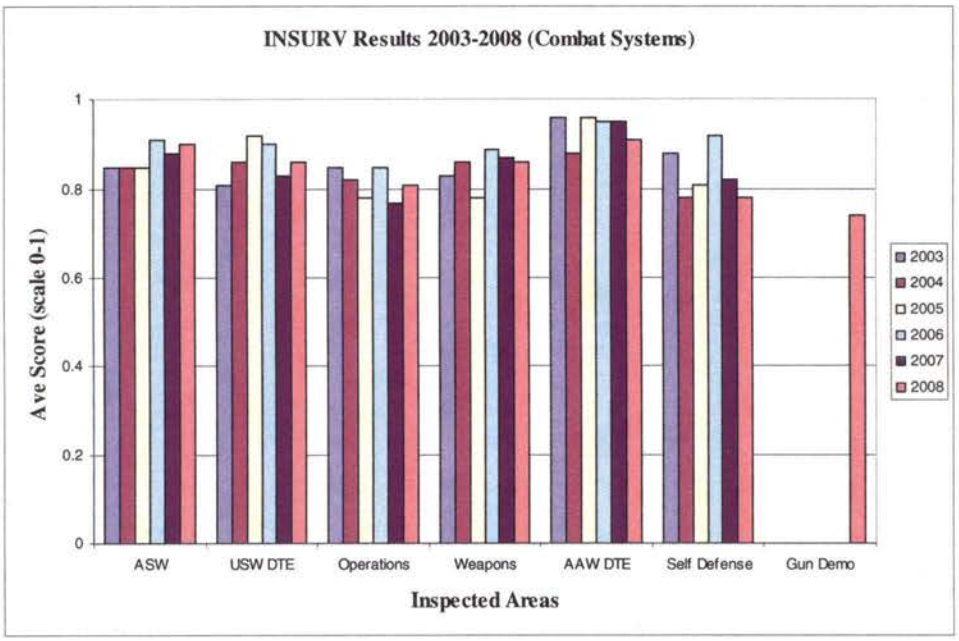


Figure 6

- The combat systems demonstrations results are generally constant with scores in the "satisfactory" range of > 0.8. The one area of decline is self-defense detect-to-engage (SD DTE). Material problems with radars and sensors result in reduced tracking capability. Some of the decline in 2008 is due to a change in grading criteria that occurred 1 Aug 2008. CNSF expanded the scope of Combat Systems assessments to include additional training and troubleshooting time and focus. The gun underway demonstration is a recently introduced event in which Cruisers, Destroyers, and Frigates perform a live fire demonstration.

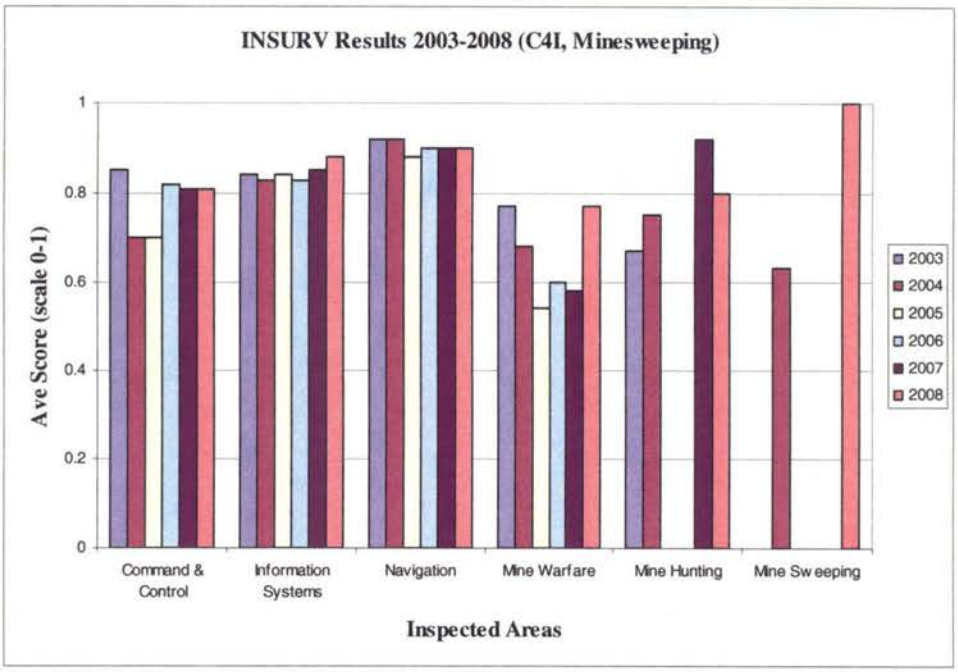


Figure 7

- The C4I and minesweeping demonstration overall are steady or improving. The Minesweeping results are from a relatively small sample size and the gaps in reporting data are influenced by inspections in which the underway demonstrations were not performed or scored, because the ship could not get underway or minesweeping gear was not operational.

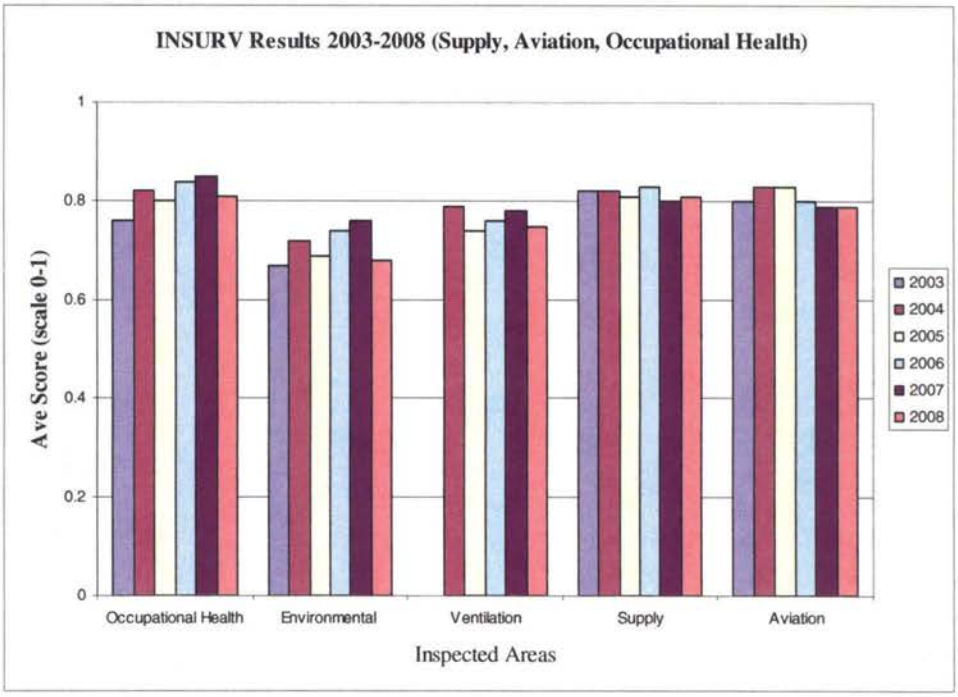


Figure 8

- The environmental protection area has a downward trend due to systems certifications expirations and oily water separators being out of commission. Maintenance and assessment documentation for oily water separators was found to be deficient. Coordination among OPNAV, NAVSEA and the Fleet is resulting in an improved understanding of these deficiencies, improvements to PMS and ship's force operations and potential engineering changes to equipment to facilitate easier maintenance and more reliability. An improved processing unit for plastic waste is being fielded and is expected to yield better operational and inspection results.

- Aviation (AV) has a downward trend due to problems with the firefighting systems, refueling systems and auxiliary support systems. CNSF efforts to improve accomplishment of PMS are expected to positively impact Aviation results, specifically the deck and auxiliary divisions on ships who are also responsible for equipment maintenance that is scored in the INSURV Aviation category. CNSF has also increased its support of ships and ISICs to improve ship's ability to assess and maintain aviation support equipment.

2. Ships with Unfit or Seriously Degraded INSURV:

Of the 191 INSURV inspections during the 2003-2008 period, there were 18 surface ships found to be unfit or seriously degraded; approximately 10%. The results for the ships with numerous issues are indicative of the ship's leadership team not following procedures and policies and not practicing the basics of equipment maintenance and operation. During some inspections, when the ship was unable to meet minimum equipment requirements and did not get underway, the inspection transitioned to a Limited Material Inspection (LMI). In all cases, after deficiencies had been corrected, underway demonstrations were later performed under the observation of the Type Commander or Immediate Superior In Command (ISIC). After June 2007, INSURV changed the sequence of the inspection. Since this change, LMI has not been used and INSURV began characterizing ships as fit or unfit for sustained combat operations. The following lists the ships found unfit or seriously degraded since 2003.

Although engineering INSURV categories in general show positive or steady trends, most unfit and seriously degraded results are due to issues with engineering equipment. Of the 18 ships found unfit or seriously degraded, 7 had discrepancies throughout the engineering department on various equipments. Nine of the 18 ships had significant discrepancies with diesel engines. Efforts outlined in section 3 of this report which address improving ships' ability to self-assess and maintain material condition are expected to reduce the occurrence of ships found unfit or seriously degraded.

2003

USS CHOSIN (CG 65): The inspection transitioned to an LMI and the ship did not get underway due to numerous engineering issues such as problems with the Gas Turbine Generators (GTG) and Central Information Systems Equipment (CISE) which must be corrected for safe and effective underway operations. The crew was unable to correct the conditions in the "repair before operate" category to support the underway portion of the INSURV inspection. The scope and magnitude of the repairs were beyond the time available to correct them within the INSURV inspection timeline.

USS KLAKRING (FFG 42): The inspection transitioned to an LMI and the ship did not get underway due to issues with the ship's generators. The crew's inability to self-assess, follow procedures, as well as their inability to adhere to operating guidance and perform quality maintenance, were also noted.

USS GARY (FFG 51): The inspection transitioned to an LMI and the ship did not get underway due to numerous engineering issues including inoperable Gas Turbine Engines (GTE).

2004

USS PELELIU (LHA 5): The inspection transitioned to an LMI and the ship did not get underway due to issues with emergency diesel generators.

2005

USS JARRETT (FFG 33): The inspection transitioned to an LMI and the ship did not get underway due to issues with auxiliary equipment and diesel generators.

USS ESSEX (LHD 2): The inspection transitioned to an LMI and the ship did not get underway due to issues with emergency diesel generators.

USS SALVOR (ARS 52): The ship met minimum equipment standards on day three, however shortly after getting underway propulsion diesel throttle control was lost and the ship returned to the pier. The inspection transitioned to an LMI. Material condition discrepancies were noted with the Main Propulsion Diesel Engines (MPDE), Ship Service Diesel Generators (SSDG), High Pressure Air Compressors (HPAC), Low Pressure Air Compressors (LPAC), and Air Conditioning / Refrigeration (AC/R) equipment.

USS NICHOLAS (FFG 47): The inspection transitioned to an LMI and the ship did not get underway due to issues with diesel generators and high pressure air compressors not meeting minimum equipment standards. Diesels and compressors were subsequently repaired.

USS DEFENDER (MCM 2): The inspection transitioned to an LMI and the ship did not get underway due to issues with propulsion and auxiliary equipment.

2006

USS SENTRY (MCM 3): The inspection transitioned to an LMI and the ship did not get underway due to numerous issues with engineering equipment such as the Magnetic Minesweeping Gas Turbine Generator (MMGTG) being inoperable, #1 MPDE failure to start, and multiple fuel and lube oil leaks.

USS DEXTROUS (MCM 13): The inspection transitioned to an LMI and the ship did not get underway due to issues with diesel generators and air conditioners.

USS CHAMPION (MCM 4): The inspection transitioned to an LMI and the ship did not get underway due to issues with engineering equipment, in particular 10 of 12 safety devices were inoperable, four significant refrigeration leaks on the Air Conditioning (A/C) units, excessive leakage on the stern tube, and inability to purify lube oil.

Note: Starting in June 2007, INSURV stopped transitioning to Limited Material Inspections (LMI) for ships unable to get underway. From this point forward, INSURV has declared these ships to be unfit.

2007

USS ASHLAND (LSD 48): The ship was found unfit due to water contamination of one reduction gear from a faulty lube oil purifier and also due to material issues with diesel generators. The ship was assigned an additional, continuous maintenance availability to correct deficiencies.

USS PIONEER (MCM 9): The ship was not able to maintain minimum equipment for propulsion diesels during the underway and all demonstrations were not able to be performed. The ship was found unfit. INSURV conducted a second inspection in 2008 and the ship was found fit.

USS RODNEY M DAVIS (FFG 60): The ship was found unfit due to material deficiencies with the evaporators and one of two steering units being out of commission. The steering unit was repaired after the inspection and the evaporators were replaced by a previously scheduled alteration with reverse osmosis units.

2008

USS CHOSIN (CG 65): The ship was found unfit due to numerous combat system and engineering discrepancies. These deficiencies were corrected during a scheduled maintenance availability after the inspection.

USS STOUT (DDG 55): The ship was found unfit due to numerous combat system equipment deficiencies and 1 of 4 gas turbines being Out-of-Commission (OOC). These deficiencies were corrected during a scheduled maintenance availability after the inspection.

USS SHOUP (DDG 86): The ship was found unfit due to a port rudder post casualty. The casualty was repaired and the ship resumed normal operations.

3. Overview of Unit Level Ability to Self-Assess and Maintain Material Condition Readiness

Specific areas targeted to improve a ship's capacity to conduct self-assessment and to maintain material condition readiness are manning, training, and maintenance.

- ***Manning***: CNSF is working with the Naval Personnel Command to ensure ships have the correct manpower and training to operate and maintain their systems. Specific efforts include:

- Management and oversight by the TYCOM and CLASSRONS to include assessment of the number of billets filled and the proper assignment of personnel.

- FFG class manning and manpower summit held to develop courses of action to correct potential deficiencies with FFG manpower and manning. Specific manning issues are being addressed within current assets as individual hulls prepare to deploy based on the assigned mission.

- Engineman Barrier Removal Team (BRT) comprised of representatives from the Navy Personnel Command, Center for Naval Engineering, and LSD/MCM/PC CLASSRONs is looking at improving engineman (EN) training, diesel engine inspector requirements and overall rating proficiency.

- Assessing the feasibility of providing special duty incentive pay for engineman Chief Petty Officers that have the LSD 41 propulsion system technician designator.

- Naval Personnel Command is planning to improve the system of assigning Sailors to ships by adding more discrete, skill-set information about individual jobs. This will enable the system to better match Sailors with specialized training to specific jobs on individual ships requiring that skill set. The system in place today assigns Sailors to ships based on seniority and training within much broader categories (rates) and leaves it up to the ship to assign people to individual jobs.

- Changing LSD class officer manning to include making the Main Propulsion Assistant (MPA) a second tour Limited Duty Officer (LDO) and ensuring that either the Commanding Officer or Executive Officer leadership team have prior shipboard engineering experience.

- Evaluating surface officer career paths to recommend changes that would enhance a ship's capability to self-assess and upkeep material condition.

- Additionally, the Center for Naval Analyses is studying the impact of reduced shipboard manning. The study will report out the effects reduced manning will have on readiness and ship's ability to self-assess. The initial report from the study is due to be delivered by June 2009, with additional assessments and analysis determined by the results of that initial report.

- ***Training*:** Center for Naval Analyses is reviewing the impact of computer based training with a report due out in June 2009. The study will also determine if computer based training fully supports the train to qualify program. The study will verify if our Sailors are receiving all of the prerequisite skills and qualifications needed to fill each billet in an LCS class ship. Other initiatives include:

- The Navy Inspector General is investigating if computer based training is delivering the right prerequisite skills training and qualifications to our Sailors. A blended learning solution may be needed to better train our Sailors in this highly technical environment.

- Partnering with Military Sealift Command (MSC) to provide civilian diesel engineering expertise to USN ships.

- Conducting a surface warfare officer waterfront introductory course that instructs new officers to a breadth of shipboard material issues.

- ***Maintenance*:** The ship's maintenance and material management (3M) system is the foundation for keeping ships combat-ready. Efforts to improve 3M performance include a comprehensive Barrier Removal Team (BRT) that is currently preparing a revision to the Surface Force instruction on 3M, as well as changes to the certification process. Additional actions include:

- Partnering with NAVSEA on ship service life assessment studies for LSD, DDG, CG and FFG class ships and executing American Bureau of Shipping (ABS) surveys. The effort will incorporate surveys and finite element computer modeling to provide an objective assessment of a ship's ability to meet its expected service life. This recently begun pilot will analyze four ships (USS MOBILE BAY (CG-53), USS COLE (DDG-67), USS GERMANTOWN (LSD-42), and USS UNDERWOOD (FFG-36)) while each is in an availability; the first targeted availability has just recently started.

- Piloted the Surface Warfare Enterprise Assessment Process (SWEAP), which initially focused on LSD class material assessment and will be expanded to other classes of ships. SWEAP is intended to improve ship Integrated Class Maintenance Plans (ICMP).

- Implementing the Surface Ship Life Cycle Management Activity (SSLCM) as the authority for applying Integrated Class Maintenance Plans (ICMPs).This activity will provide surface ships with the engineering life cycle support similar to that provided to submarines and aircraft carriers. .

- Increasing the duration of selected maintenance availabilities and periodic continuous maintenance availabilities to ensure critical life cycle repairs are conducted.

- TYCOM/CLASSRON active oversight to improve processes for zone inspections, material assessments as well as preparations for INSURV underway material inspections.

4. Improvements to the Engineered Requirements Process

About 10 years ago, the surface ship maintenance strategy shifted from an engineered operating cycle for maintenance planning to a progressive maintenance strategy. In retrospect, this change supports short–term readiness but sacrificed the critical, focused, engineered approach to enable surface ships to reach full service life.

The primary response to the declining trend is the establishment of the Surface Ship Life Cycle Management Activity (SSLCM) that will instill engineering rigor into the Integrated Class Maintenance Plan (ICMP), both in work package development and in availability execution. Comprehensive ICMP planning and execution will enable ships to achieve full service life. By

establishing the SSLCM the Surface Warfare Enterprise, in partnership with NAVSEA, is restoring the necessary emphasis to deep, long term maintenance tasks that have recently been subject to deferral or cancellation.

The following additional actions are being taken:

- The partnering effort with NAVSEA and ABS (discussed in section 3) will identify areas that require additional maintenance and targeted attention for selected ships.

- The development of hull specific availability requirements and increased technical rigor will enable ships to achieve full design hull life.

5. Littoral Combat Ship (LCS) Maintenance

Maintenance: The rotational crewing concept and size of the crew drives the maintenance philosophy. The seaframe crew size on LCS is small when compared to legacy ships of similar size and displacement. Rotational crewing requires extensive support from the shore infrastructure. These two factors necessitated a new approach (the Interim Support Plan) to accomplishing maintenance.

Under this new maintenance approach, the crew will focus on accomplishing emergent underway repairs that are within its capability and will accomplish corrective, preventive and facilities maintenance that is within capability and capacity. The majority of preventive, corrective, and facilities maintenance and emergent repairs that can not be accomplished by ship's force due to lack of capability or capacity will be outsourced to Lockheed Martin (LM) and General Dynamics (GD) under the Interim Support Plan (ISP). The small remaining portion of maintenance would be accomplished utilizing organic Navy assets resident in Regional Maintenance Centers and Naval Shipyards.

The Interim Support Plan is a maintenance philosophy that enables the Navy to leverage the existing LM/GD shipbuilding infrastructure, experience and original equipment manufacturer (OEM) network to support the ship. All shipboard maintenance requirements will be brokered through the LCS Class Squadron (LCSRON) and the Maintenance Support Detachment (MSD) in San Diego. The MSD consists of two teams, the Maintenance Support and the Logistics Support Teams that will handle any and all maintenance and logistics issues for LCSs. Those teams consist of personnel from the Regional Maintenance Center, Fleet Industrial Support Center (FISC), Navy Inventory Control Point (NAVICP), LCSRON, and the prime contractors.

The Interim Support Plan has been contracted for a trial period of three years with the government having the option to continue to utilize this concept long term. The three year period will give the Navy adequate time to evaluate contractor performance/responsiveness and determine the right balance of ship's force, contractor and organic Navy workforce needed to support LCS long term.

Every 117 days there will be a Continuous Maintenance Availability (CMAV) that will coincide with the crew turnover period when a contractor team will conduct planned facilities, preventative and corrective maintenance. Every two years the ship will go through a Selected Restricted Availability (SRA). Docking SRAs (DSRA) are scheduled approximately every six years.

Budget Requirements: Commander, Naval Surface Forces (CNSF) is currently budgeting through the annual PPBE process. Based upon the requirements for other ship classes, CNSF is developing out-year budgeting requirements for CNO Availabilities, Continuous Maintenance (CM), and the ISP for both LCS Platforms. CNSF and OPNAV N43 are developing man-day requirements for Docking Scheduled Restricted Availabilities (DSRA), which will occur about every six years, and Scheduled Restricted Availabilities (SRA), which will occur about every two years. We are negotiating the ISP which will then inform the budget report. Initial maintenance programming estimates for LCS 1 and 2 are approximately $7M per ship per fiscal year. The Navy will refine maintenance estimates as LCSs enter service and maintenance needs continue to be evaluated.

Report to Congress

On

America (LHA 6)

Production Readiness Review

PREPARED BY:
Program Executive Office, SHIPS

MAY 2009

TABLE OF CONTENTS

SECTION	PAGE
I. REPORT OVERVIEW	1
II. EXECUTIVE SUMMARY	1
III. REPORT	3
A. PROGRAM DESCRIPTION	3
B. MATURITY OF DESIGN	4
C. MATURITY OF DEVELOPMENTAL SYSTEMS	4
D. READINESS OF SHIPYARD FACILITIES AND WORKFORCE	4
E. NAVY ESTIMATED COST AT COMPLETION AND ADEQUACY OF BUDGET	5
F. NAVY ESTIMATED DELIVERY DATE	5
G. RISK MANAGEMENT PROCESSES AND METRICS	6
IV. CERTIFICATION	6
Appendix A	A-1

Report to Congress on AMERICA (LHA 6)

I. REPORT OVERVIEW

This report provides a production readiness review as described in Section 124 of the National Defense Authorization Act (NDAA) (Public Law 110-181) for Fiscal Year 2008. Section 124, Assessments Required Prior to Start of Construction on First Ship of a Shipbuilding Program, requires submission to Congress of a production readiness review concurrent with approval of start of construction of the first ship of a major shipbuilding program. Section 124 does not apply to AMERICA (LHA 6) because this major shipbuilding program began construction before the date of enactment of Section 124. Knowing, however, that Congress would like to receive the type of information described in Section 124 for the LHA 6 also, the Navy has prepared this LHA 6 production readiness review report. Section 124 provides that, concurrent with approving the start of construction of the first ship of any major shipbuilding program, the Secretary of the Navy shall (1) report to the Defense and Appropriations Committees the results of any shipbuilding production readiness review; and (2) certify to such committees that the findings of any such review support commencement of shipbuilding construction. Section 124 further provides that the report required by subsection (a) (1) shall include, at a minimum, an assessment of each of the following:

(1) The maturity of the ship's design, as measured by stability of the ship contract specifications and the degree of completion of detail design and production design drawings.

(2) The maturity of developmental command and control systems, weapon and sensor systems, and hull, mechanical and electrical systems.

(3) The readiness of the shipyard facilities and workforce to begin construction.

(4) The Navy's estimated cost at completion and the adequacy of the budget to support the estimate.

(5) The Navy's estimated delivery date and description of any variance to the contract delivery date.

(6) The extent to which adequate processes and metrics are in place to measure and manage program risks.

II. EXECUTIVE SUMMARY

An initial LHA 6 Production Readiness Review (PRR) was held on September 11, 2008 to assess the readiness of the Design, Manpower, Material, Quality Assurance Metrics, Production Methods, Unit Pre-Outfitting and Facilities to successfully start and sustain production of LHA 6. The Contractor, Northrop Grumman Shipbuilding (NGSB), specifically addressed each of the following at the PRR: 1) the degree of completion of

the detail design drawings and specifications of the ship; 2) the readiness of the shipyard facilities and workforce to begin construction; 3) the maturity level of research and development efforts of any new technologies, not including Government Furnished Equipment (GFE), that will be used in the ship's command and control systems, weapons systems, sensor systems, mechanical or electrical systems, or hull; and 4) the ability of the Contractor to meet cost and schedule estimates within the applicable program baseline.

LHA 6 is a modified repeat design of MAKIN ISLAND (LHD 8) and, as such, started with a high level of Ship Specifications maturity and stability prior to the detail design and planning efforts for the ship construction. As of March 2009, over 72% of all production related drawings have been completed and no design issues were identified that would impact production efforts. The schedule for completion of the remaining production drawings supports the continuance and sustainment of the phased production for LHA 6. All systems/equipment for LHA 6 are at a Technology Readiness Level (TRL) of 8 or higher and have been demonstrated in an operational environment. Although some qualifications are still required for a few systems, no issues relating to these qualifications are expected to impact the sustained production of LHA 6.

The LHA 6 Program Manager determined during the September 2008 PRR that NGSB had addressed all PRR Exit Criteria and granted approval for NGSB pre-phase fabrication efforts in support of the December 8, 2008 official start of sustained production for LHA 6. Although NGSB did not provide sufficient information to fully satisfy exit criteria associated with Labor Planning, Facilities Readiness and Earned Value Status, none of the issues noted were considered significant enough to prevent sustained production on LHA 6 in the near term.

Since the initial PRR, the Navy has conducted three additional Portfolio Reviews of the overall shipyard activities at the Gulf Coast facility. Through these exchanges, NGSB has provided the Navy adequate information to assess the sufficiency of the labor and facility resources available to sustain LHA 6 production efforts. Although some shortages in critical labor trades and facility resources have been identified, NGSB has presented reasonable mitigation plans and these risk areas will not impede sustained production.

After review by the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RDA)), a second PRR was directed to ensure design and planning readiness to sustain production and to further assess the maturity of the design -- specifically, in the electrical area and the planning improvements to increase pre-outfitting of units prior to erection. The second PRR was held on February 17-19, 2009. During this PRR, NGSB successfully demonstrated implementation of electrical and pre-outfitting improvement initiatives and demonstrated significant production planning improvements when compared to similar planning on prior big deck amphibious ships.

The Navy determined that there were no production related issues that will prevent sustained production of LHA 6.

The Secretary of the Navy provides this report and information contained within as certification that the findings of the two LHA 6 production readiness reviews support sustained production of LHA 6.

III. REPORT

A. PROGRAM DESCRIPTION

LHA 6 is a modified LHD 8 design, incorporating the same gas turbine propulsion plant, zonal electrical distribution and electric auxiliary systems design approach as LHD 8. However, the LHA 6 design is optimized for operation and maintenance of future Marine Corps Aviation Combat Element (ACE) aircraft including the MV-22 OSPREY tilt rotor and the F-35B Joint Strike Fighter (JSF). In lieu of a well deck, LHA 6 significantly enhances the ship's aviation capability by providing an enlarged hangar deck, expanding aviation maintenance facilities, increasing stowage for aviation parts and support equipment, and increasing aviation fuel capacity.

LHA 6 will retain the multifunctional and versatile aspects of the LHA and LHD class Command, Control, Communications, Computers and Intelligence (C4I) suites and incorporate features to allow for flexible mission dependent reconfiguration. LHA 6 will also have increased cargo magazine capacity to support JSF aviation ordnance, better survivability and greater service life margins than previous Amphibious Assault Ships. LHA 6 will provide forward presence and power projection as an integral part of joint, interagency and multinational maritime expeditionary forces.

On June 1, 2007, the Department of the Navy awarded a Fixed-Price Incentive (FPI) contract to Northrop Grumman Shipbuilding (NGSB) for the detail design and construction (DD&C) of LHA 6. This contract action was executed as a contract modification to the existing contract N00024-05-C-2221 awarded to NGSB in July 2005 for procurement of long lead time materials in FY05 and FY06 and for engineering and design efforts in support of the impending DD&C contract for LHA 6. These preceding contract actions were subsumed into the basic LHA 6 line item for DD&C. The work is being performed in the Gulf Coast region and in Newport News, Virginia. In addition to ship production, this effort includes inspection, testing and the procurement of technical manuals, crew familiarization training and provisioning spares. The contractor will perform material sourcing, material ordering, vendor interface and material quality assurance. In addition, the contractor will provide the required management effort including subcontract and risk management during the entire period of detail design, construction and testing.

B. MATURITY OF DESIGN

LHA 6 is a modified repeat design of MAKIN ISLAND (LHD 8). As such, the design started with a high level of Ship Specification maturity and stability prior to the specific detail design efforts required for production of LHA 6. To provide an understanding of the relationship between the completion of detail design and production design drawings to the ability to start and sustain production, a background on the production build sequencing for LHA 6 is required. NGSB builds and erects big deck amphibious ships such as LHA 6 in a modular manner and in a phased sequence. As depicted in Appendix 1, LHA 6 consists of 216 units erected into three ship modules. The fabrication and erection sequence for LHA 6 is comprised of 16 distinct phases beginning with the official start of sustained production date of December 8, 2008.

At the time of the initial PRR, a total of 55% of all production drawings required for the ship had been completed, including 100% of all production related drawings and products relative to Production Phases 1 and 2, the production phases evaluated at the initial and second PRR. No design issues were identified that would impact production efforts. Currently, over 72% of all production related drawings have now been completed. The schedule for completion of the remaining production drawings also supports the continuance and sustainment of the phased production for LHA 6.

C. MATURITY OF DEVELOPMENTAL SYSTEMS

There are a limited number of systems for LHA 6 that will be installed for a first time use in a shipboard environment and none of these systems involve new research and development. All systems/equipment for LHA 6 are at a TRL of 8 or higher and have been demonstrated in an operational environment. Although some qualifications are still required for a few systems, no issues relating to these qualifications are expected to impact the sustained production of LHA 6.

D. READINESS OF SHIPYARD FACILITIES AND WORKFORCE

During the September 2008 PRR, the data presented on sector resources and fabrication, erection and storage facilities, assumed and supported a NGSB proposed delivery date of April 8, 2013 vice the contract delivery date of August 31, 2012. NGSB presented the workforce loading data for the Sector, and plans for hiring additional labor and contingencies if hiring plans are not fully realized.

The NGSB resource planning information provided did not fully demonstrate that NGSB has the available workforce and/or adequate work around and mitigation plans to sustain LHA 6 production efforts during the peak years of 2009 – 2011 and, a minimal margin

exists in critical labor resources if any unforeseen event occurs during the production time period for LHA 6. NGSB was requested to provide additional supporting data to address the Navy concerns and continue to update the Navy at Quarterly Program Reviews on these areas of interest/concern.

The Navy also identified some reservations regarding facility improvements outlined in the Katrina Recovery Plan that are required for LHA 6 production -- specifically, completion of the new North-North Build position for keel laying. During the follow-on PRR, the Navy determined the facilities were ready for keel laying which occurred late April 2009.

Through continuing exchange of information and subsequent Portfolio Reviews held by the Navy to review NGSB-Gulf Coast (GC) sector wide operations, NGSB has demonstrated to the Navy, sufficient labor, facility resources and mitigation plans are available to support sustained LHA 6 production. The Navy will continue to assess labor and facility situations with NGSB-GC at LHA 6 Quarterly Program Reviews and during upcoming NGSB Portfolio Reviews.

E. NAVY ESTIMATED COST AT COMPLETION AND ADEQUACY OF BUDGET

The current end cost for LHA 6 as reflected in the Fiscal Year 2010 President's Budget is $3,077.0 million. This amount included $297.7 million appropriated in FY 2005 and FY 2006 for Advance Procurement (AP), $1,131.1 million appropriated in FY 2007, $1,365.8 million appropriated in FY 2008 and $14.3 million appropriated in FY 2009. An additional $202.0 million was allocated from FY 2006 Hurricane Supplemental funds to address impacts from Hurricane Katrina. A future budget request is expected to include $66.1 million for rate adjustments attributed to the 2006 Pension Reform Act.

F. NAVY ESTIMATED DELIVERY DATE

The contract delivery date for LHA 6 is August 31, 2012. LHD 8 quality issues and schedule delays (including Hurricane Katrina impact), insufficient NGSB labor resources in key trades, inadequate vessel labor performance and the fact that the NGSB workforce has not yet been reconstituted after Katrina, have resulted in NGSB proposing a ship contract delivery delay until April 2013. The Navy anticipates a contract modification for the new LHA 6 contract delivery date to be negotiated in late Fiscal Year 2009 after completion of a Vessel Labor Integrated Baseline Review and the development of a preliminary Navy's Program Manager's Estimate at Completion.

G. RISK MANAGEMENT PROCESSES AND METRICS

A formal and robust risk management process is in place for LHA 6. The Navy and NGSB meet on a weekly basis to address program risks and associated mitigation plans and progress. Program risks with associated cost estimates are included in the required monthly submission of the LHA 6 Cost Performance Report (CPR).

The Navy's liability on the LHA 6 DD&C contract is limited by the 50/50 shareline to contract ceiling. Cost growth beyond the ceiling price is the sole responsibility of NGSB (other than Economic Price Adjustments).

LHA 6 is a low-risk design and adequate controls are in place to prevent unconstrained cost growth. Since the Fiscal Year 2007 contract award, the LHA 6 Program Manager has aggressively applied cost control measures. The Program Manager is taking the following additional steps to control, limit, or mitigate cost growth:

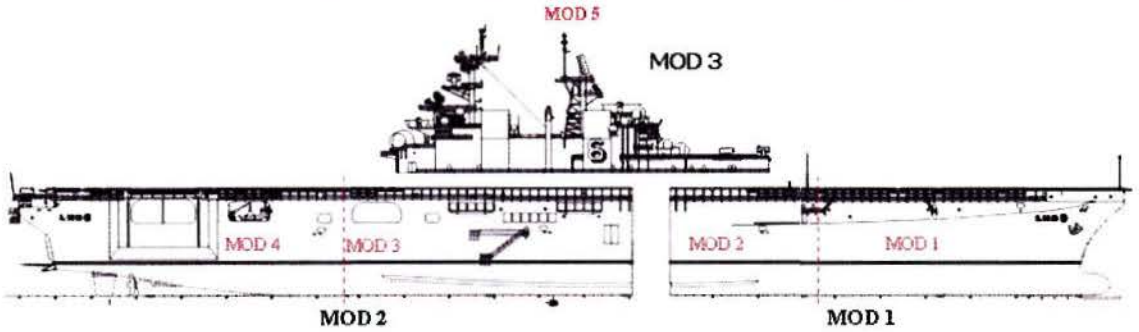
- Accepting delivery of the ship with legacy systems. Planned enhancement and product improvements, which do not support safe to sail and flight deck certification, will be deferred for installation in post delivery ship availabilities.
- Minimizing the Navy's liability for cost increases through pro-active technical and material support to the contractor.
- Minimizing change orders issued to the shipbuilder to mandatory changes, focusing on solutions that will not impact the ship delivery date.
- Executing an Over Target Baseline (OTB) and Over Target Schedule (OTS) based on the Contractor's Most Likely Latest Revised Estimate (LRE) and estimated delivery date so that Earned Value assessments can be made against meaningful cost and schedule parameters.

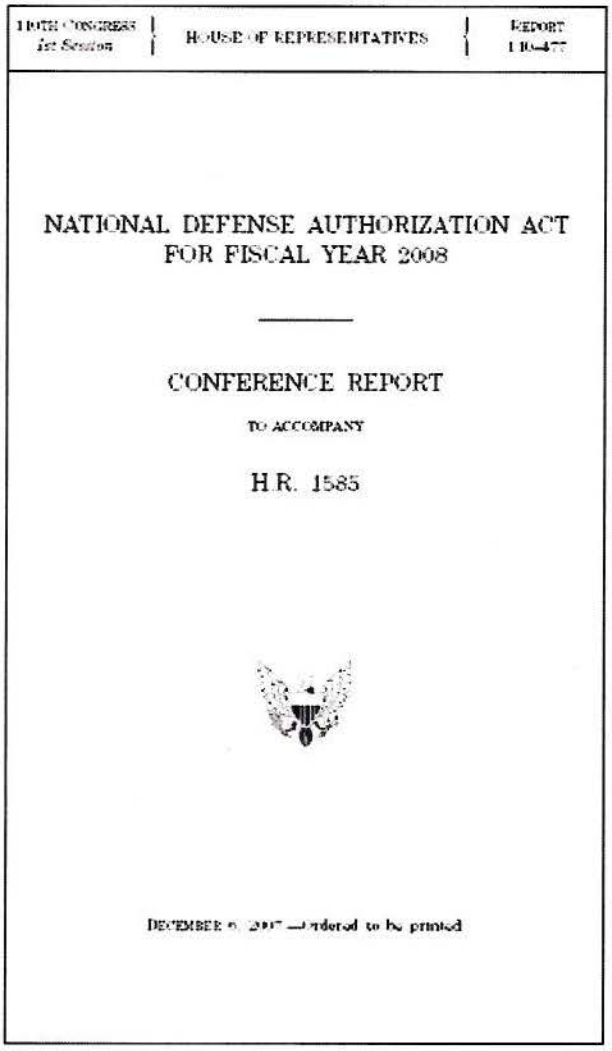
IV. CERTIFICATION

Based on the above findings, I certify that the LHA 6 is ready for commencement of full shipbuilding construction activities.

Appendix 1

LHA 6 Build Strategy





110TH CONGRESS | HOUSE OF REPRESENTATIVES | REPORT
1st Session | | 110-477

NATIONAL DEFENSE AUTHORIZATION ACT
FOR FISCAL YEAR 2008

CONFERENCE REPORT

TO ACCOMPANY

H.R. 1585

DECEMBER 6, 2007.—Ordered to be printed

From FY08 NDAA Report 110-477, pages 27 and 28

SEC. 124. ASSESSMENTS REQUIRED PRIOR TO START OF CONSTRUCTION ON FIRST SHIP OF A SHIPBUILDING PROGRAM.

(a) IN GENERAL.—Concurrent with approving the start of construction of the first ship for any major shipbuilding program, the Secretary of the Navy shall—

(1) submit a report to the congressional defense committees on the results of any production readiness review; and

(2) certify to the congressional defense committees that the findings of any such review support commencement of construction.

(b) REPORT.—The report required by subsection (a)(1) shall include, at a minimum, an assessment of each of the following:

(1) The maturity of the ship's design, as measured by stability of the ship contract specifications and the degree of completion of detail design and production design drawings.

(2) The maturity of developmental command and control systems, weapon and sensor systems, and hull, mechanical and electrical systems.

(3) The readiness of the shipyard facilities and workforce to begin construction.

(4) The Navy's estimated cost at completion and the adequacy of the budget to support the estimate.

(5) The Navy's estimated delivery date and description of any variance to the contract delivery date.

(6) The extent to which adequate processes and metrics are in place to measure and manage program risks.

(c) APPLICABILITY.—This section applies to each major shipbuilding program beginning after the date of the enactment of this Act.

(d) DEFINITIONS.—For the purposes of subsection (a):

(1) START OF CONSTRUCTION.—The term ''start of construction'' means the beginning of fabrication of the hull and superstructure of the ship.

(2) FIRST SHIP.—The term ''first ship'' applies to a ship if—

(A) the ship is the first ship to be constructed under that shipbuilding program; or

(B) the shipyard at which the ship is to be constructed has not previously started construction on a ship under that shipbuilding program.

(3) MAJOR SHIPBUILDING PROGRAM.—The term ''major shipbuilding program'' means a program for the construction of combatant and support vessels required for the naval vessel force, as reported within the annual naval vessel construction plan required by section 231 of title 10, United States Code.

(4) PRODUCTION READINESS REVIEW.—The term ''production readiness review'' means a formal examination of a program prior to the start of construction to determine if the design is ready for production, production engineering problems have been resolved, and the producer has accomplished adequate planning for the production phase.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

ACTION MEMO

May 22, 2009

MEMORANDUM FOR SECRETARY OF THE NAVY UNSECNAV_____

FROM: Mr. Sean J. Stackley, Assistant Secretary of the Navy (Research, Development and Acquisition)

SUBJECT: LHA 6 Start of Construction Approval and Congressional Notification

- Secretary Mabus, I recommend you sign TAB A letters which forwards to Congress the results of the Production Readiness Review (PRR) of the LHA (R) Class Amphibious Assault Ship Replacement Program (TAB B); and certifies that the findings of the PRR supports commencement of pre-phase fabrication effort in December 2008 of AMERICA (LHA 6) and addresses documented Navy concerns. A follow-on PRR was conducted to verify the course of action taken to address Navy concerns. In May 2009, I concurred with the findings of the follow-on PRR that there are no production related issues that will prevent sustained production of LHA-6.

- The PRR report provides the information described in Section 124 of the National Defense Authorization Act for Fiscal Year (FY) 2008, Public Law 110-181 (TAB C). Section 124 requires submission to Congress of a PRR concurrent with approval of the start of construction of the first ship of a major shipbuilding program. Section 124 does not apply to the LHA (R) program because construction of the lead ship of this major shipbuilding program was approved prior to the date of the enactment of Section 124. Knowing, however, that Congress would like to receive the type of information described in Section 124 for the LHA (R) program, the Navy has prepared this LHA 6 PRR.

RECOMMENDATION: Respectfully request you sign TAB A and provide Congress with the AMERICA (LHA 6) Construction PRR results along with your certification that the findings of the PRR supports the December 8, 2008 official start of sustained production for LHA 6.

8 JUL 09

COORDINATION: TAB D

AASN RELEASE

Attachments:
As stated.

Prepared by: Ms. Allison Stiller, Deputy Assistant Secretary of the Navy for Ships Programs, (703) 697-1710

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

July 8, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the LHA (R) program because this major shipbuilding program began before the date of the enactment of Section 124. However, I would like to establish a full and open dialogue with Congress regarding all shipbuilding matters. Accordingly, the Department of the Navy has prepared this LHA 6 production readiness review report for your review.

I have approved the start of construction of AMERICA (LHA 6), lead ship of the AMERICA Class amphibious assault ship. The enclosed report supports this decision.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure:
As stated

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 8, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the LHA (R) program because this major shipbuilding program began before the date of the enactment of Section 124. However, I would like to establish a full and open dialogue with Congress regarding all shipbuilding matters. Accordingly, the Department of the Navy has prepared this LHA 6 production readiness review report for your review.

I have approved the start of construction of AMERICA (LHA 6), lead ship of the AMERICA Class amphibious assault ship. The enclosed report supports this decision.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 8, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the LHA (R) program because this major shipbuilding program began before the date of the enactment of Section 124. However, I would like to establish a full and open dialogue with Congress regarding all shipbuilding matters. Accordingly, the Department of the Navy has prepared this LHA 6 production readiness review report for your review.

I have approved the start of construction of AMERICA (LHA 6), lead ship of the AMERICA Class amphibious assault ship. The enclosed report supports this decision.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

July 8, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the LHA (R) program because this major shipbuilding program began before the date of the enactment of Section 124. However, I would like to establish a full and open dialogue with Congress regarding all shipbuilding matters. Accordingly, the Department of the Navy has prepared this LHA 6 production readiness review report for your review.

I have approved the start of construction of AMERICA (LHA 6), lead ship of the AMERICA Class amphibious assault ship. The enclosed report supports this decision.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

SECNAV COORDINATION PAGE

Office	Name	Phone Number	Date
PMS 377	CAPT Jeff Riedel	(202) 781-0940	April 23, 2009
PEO SHIPS	RADM W. E. Landay	(202) 781-2941	April 23, 2009
NAVSEA 00D	W. Sontag	(202) 781-2978	May 7, 2009
OPNAV N801	Etta Jones	(703) 692-5439	May 7, 2009
OPNAV N822	Gloria Valdez	(703) 692-1688	May 7, 2009
OPNAV N85	Willie Brown	(703) 692-1504	May 7, 2009
OPNAV N8F	Jackie Wilcher	(703) 614-2312	May 7, 2009
FMBE	LCDR Tadd Gorman	(703) 692-6726	May 7, 2009
OLA	CDR Shanti Sethi	(703) 695-1366	May 7, 2009
DASN AGC	Ms. Katharine Carney	(703) 697-1642	May 8, 2009
OLA	RADM M.H. Miller	(703) 697-7146	June 3, 2009
SAL	CDR Gary Sharp	(703) 697-7146	June 4, 2009
FMBE	CAPT T. McGovern	(703) 692-6735	June 4, 2009

NON CONCUR COMMENTS:

None.

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(MANPOWER AND RESERVE AFFAIRS)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 30 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report to the House and Senate Committees on Appropriations by April 30, 2009, on a plan for implementation of programs to provide opportunities and financial incentives for top performers at Naval Shipyards to receive four-year engineering degrees, executive management training certificates, and business school degrees. An interim response was submitted stating that the report would be submitted no later than June 30, 2009. Enclosed is the Navy report.

The Navy is committed to continuing to work with Congress to identify programs and incentives that will assist in attracting and retaining engineers at Naval Shipyards. As described in the enclosed report, a collaborative effort among the Naval Sea Systems Command, the four Naval Shipyards and their respective local educational institutions has already created programs that provide opportunities and financial incentives for top performers. The report identifies additional efforts that could consolidate these programs or develop plans for the implementation of new ones.

A similar letter has been sent to Chairman Murtha. If I can be of further assistance, please let me know.

Sincerely,

Patricia C. Adams
Deputy Assistant Secretary
on the Navy (Civilian
Human Resources)
Performing the Duties of the
ASN M&RA

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

REPORT TO CONGRESS

Naval Shipyard Workforce Development Program

Prepared by:

Commander
Naval Sea Systems Command
Washington, DC 20376

June 2009

Table of Contents

Report Requirement	1
Executive Summary	1
Report to Congress: Naval Shipyard Workforce Development Program	3
Existing Naval Shipyard Labor Force Revitalization Initiatives	3
Naval Shipyard Training and Education Program (NSTEP)	3
Command Universities	3
Strategic Plan	3
Methodology	8
Table 1: Naval Shipyard Workforce Development Program Initiatives	5

Report Requirement

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report to the House and Senate Committees on Appropriations by April 30, 2009, on a plan for implementation of programs to provide opportunities and financial incentives for top performers at Naval Shipyards to receive four-year engineering degrees, executive management training certificates, and business school degrees. The document stated:

> There is concern about the challenges to recruit and retain qualified personnel at the Navy shipyards. It is becoming increasingly difficult to attract and retain engineers into the public sector primarily because of the benefits offered to engineers in the private sector and because the shipyards do not have the necessary programs and incentives to groom executive management and leadership skills to further workforce development. There is strong support for the Naval Apprenticeship Program, which has the potential to contribute to the workforce in other positions if provided opportunities and incentives. Therefore, the Navy is directed to establish programs to provide opportunities and financial incentives for top performers to receive four-year engineering degrees, executive management training certificates, and business school degrees. Programs similar to the apprenticeship program can help stave off the impending steep decline in personnel at the shipyards and ensure a more stable workforce. The Navy is directed to work with each shipyard and the respective local educational institutions to craft these programs and report to the House and the Senate Committees on Appropriations by April 30, 2009, on a plan for implementation.

Executive Summary

In response to the House Appropriations Committee direction, the Naval Sea Systems Command (NAVSEA) has actively engaged with all four Naval Shipyards and their respective local educational institutions. NAVSEA is implementing a Workforce Development Program (WDP) based on the unique mission, workload, and workforce strategic needs of the Naval Shipyards. This WDP provides the framework for an integrated corporate labor force revitalization plan that is aligned to overall Department of Defense (DoD) and federal civilian strategies. The WDP addresses all aspects of human resource management such as:

- Workforce/workload demand signals
- The ability to identify, prioritize and sustain critical competency areas (engineering and others)
- Hiring and retention rates
- Causes of attrition within critical competency areas
- Assessment of labor market conditions
- Additional "programs to provide opportunities and financial incentives" to bolster Naval Shipyard Workforce Development

As part of workforce development, the Naval Shipyards have crafted aggressive programs that provide financial incentives in the form of funded tuition and salary to attract and retain top performers in the Naval Shipyards. Using existing statutory and regulatory authorities, these programs are open to graduating high-school seniors as well as those who are qualified within the current workforce. The Naval Shipyards provide financial tuition assistance within current budget limitations for the pursuit of four-year engineering and business degrees as well as executive management training certificates. Implementation of the WDP is administered through the Naval Shipyard Training and Education Program (NSTEP) across the Naval Shipyards.

Executive Management Training Certification opportunities exist at all four Naval Shipyards. NSTEP oversees the leadership development curriculum of all civilian management training. First- and Second-Level Supervisory courses as well as Third-Level Manager and Senior Manager Workshops are geared to provide standard baselines of knowledge, skills, and abilities (KSAs) to all participants of these programs. Additionally, NAVSEA sponsors executive leadership training opportunities for top performers and future leaders within the enterprise.

The Naval Shipyards have long recognized the need for a variety of integrated programs that address recruiting, workforce development, retention, and attrition across all skills and experience levels resident in the Industrial Operations competency of the Naval Shipyards. The Naval Shipyards support these programs within current budgets.

Report to Congress
Naval Shipyard Workforce Development Program

Existing Naval Shipyard Labor Force Revitalization Initiatives

The Naval Shipyards offer a variety of programs and incentives in the area of workforce development that meet the requirements of the House Appropriations Committee. These programs and incentives include Apprentice Schools, degree and non-degree coursework, and local and corporate supervisory and leadership development programs. Table 1 outlines the various workforce development initiatives in place at the Naval Shipyards and delineates individual Naval Shipyard programs. Advanced education programs are used to groom executive management and leadership skills. Examples include master's degree programs in systems engineering as well as business administration.

Naval Shipyard Training and Education Program (NSTEP)

On 30 September 2007, NAVSEA's Industrial Operations Directorate (SEA 04X) formally stood up the Naval Shipyard Training and Education Program (NSTEP). NSTEP is a centralized systems approach to addressing workforce challenges at all Naval Shipyards. NSTEP is directly integrated with the human resource management of the Naval Shipyards. NSTEP leaders establish and implement new policies, processes, curriculum, and methods to meet the current and projected shortfalls in workforce and leadership development.

NSTEP was formulated with these goals:

- Consolidate, centralize, and standardize the Naval Shipyard training functions to the greatest extent possible to reduce redundancies and inefficiencies within the training organizations of the Naval Shipyards.
- Optimize and enable the sharing of resources across the organization.

Command Universities

Recently, Naval Shipyard labor force revitalization programs have been consolidated under a single organization within each Naval Shipyard. The stand-up of virtual Command Universities within all four Naval Shipyards has brought a coordinated focus on WDP, including employee development, training, and education. While providing for current workforce development, these organizations are also tasked with the strategic management of associated programs using NSTEP governance.

Strategic Plan

Several programs are available to Naval Shipyard employees for their professional development. Overall, nearly 300 employees are enrolled in these programs. Employees are selected for the programs by competitive processes and merit-staffing procedures, which typically involve an evaluation and selection by a panel.

Several barriers to program implementation have been identified. Primarily, these relate to the necessity for the workforce to be available to handle potential workload or mission-essential work and available funding. Some information technology limitations have been identified, which deal with access to coursework through the Navy/Marine Corps Internet (NMCI).

Table 1 outlines various workforce development programs. NAVSEA continually assesses future workload and workforce needs and as part of the strategic planning it works to develop programs to support those needs.

Table 1. Naval Shipyard Workforce Development Program Initiatives

PSNS & IMF	NNSY	PHNSY & IMF	PNSY
4 Year Degree Programs			
Characteristics			
Student Career Experience Program (SCEP) - 4 year degree program from various colleges and universities, both locally and across the country - 1-for-1 service agreement - Off-the-clock training.	Tuition Assistance Program is available on a limited basis Student Career Experience Program (SCEP) - 4 year degree program from various colleges and universities - Engineering - Accounting Mechanic to Engineer Program - Hired via SCEP hiring authority. - Partnered with Old Dominion Univ. School of Engineering - Student/Employee works part time while attending Fall and Spring semesters - 1-for-1 service agreement	- 4 year degree program from various colleges and universities **Note:** PHNSY & IMF plans to begin its pilot program in August 2009	Student Career Experience Program (SCEP) - 4 year degree program from various colleges and universities Varying degree programs through the University of Maine Industrial Technology Career Path Program - Partnered with Univ of Southern Maine Technician to Engineer Program - Partnered with Univ of Southern Maine - After hours coursework - Uses the Industrial Technology Degree coursework - 1-for-1 service agreement
Number of Participants			
36	10	–	64

PSNS – Puget Sound Naval Shipyard
NNSY – Norfolk Naval Shipyard
PHNSY – Pearl Harbor Naval Shipyard
PNSY – Portsmouth Naval Shipyard

PSNS & IMF	NNSY	PHNSY & IMF	PNSY
Management Certification Programs			
Characteristics			
Public Management Certification (PMC)) - Graduate level certificate program - 15 credit program of study - Off-the-clock training - Requires some travel to Indiana University Corporate Leadership Development Program (CLDP	Public Management Certification (PMC) - Graduate level certificate program - 15 credit program of study - Off-the-clock training - Requires some travel to Indiana University Corporate Leadership Development Program (CLDP)	Public Management Certification (PMC) - Graduate level certificate program - 15 credit program of study - Off-the-clock training - Requires some travel to Indiana University Corporate Leadership Development Program (CLDP)	Corporate Leadership Development Program (CLDP)
Master's Degree Programs (other than Business Degrees)			
Master of Public Affairs (MPA) - Extension of PMC program - Off-the-clock training	Master of Public Affairs (MPA) - Extension of PMC program - Off-the-clock training	Master of Public Affairs (MPA) - Extension of PMC program - Off-the-clock training	
Number of Participants			
10	10	11	120

PSNS & IMF	NNSY	PHNSY & IMF	PNSY
Business Degree Programs			
Characteristics			
Case-by-case coursework supported but no formal program	Case-by-case coursework supported but no formal program	Master Business Administration (MBA) - Offered off site - Off-the-clock training Master Human Resource Management (MHRM) - Code 2300 only - Offered off site - Off-the-clock training	Master of Business Administration (MBA) Various master's degree programs
Number of Participants			
0	0	6	15

An example of the programs and partnerships described in Table 1includes Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF) and Olympic College (OC) in Bremerton, WA. In recent years, PSNS & IMF has been successful in securing the facilitation of the Apprentice Program associate's degree program with OC educators visiting the Shipyard and providing instruction directly at the work site. This has allowed Shipyard employees to stay within their own work boundaries each classroom day, thus, reducing the risk of lost time while commuting back and forth to the community college. In addition, the stand up of Command University at PSNS & IMF has provided all Shipyard employees the opportunity to continue their education beyond the associate's degree program by providing a learning venue that includes undergraduate, graduate, and leadership development certification programs.

Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY & IMF) has developed a pilot program in which its Apprentice Program has teamed with Honolulu Community College (HCC) to form an Apprentice-to-Engineer program. Graduates of the Shipyard's Apprentice Program who have an associate's degree in Applied Science from Honolulu Community College (HCC)—known to Shipyard apprentices as the HCC Track—can enter the program. This formal training program leads to a bachelor's degree in Engineering. After successful completion of the program, the student will be noncompetitively converted to competitive service in one of the following engineering disciplines: Mechanical, Electrical, Chemical, Civil, Structural, Nuclear, Industrial, Welding, Materials Engineering, Naval Architecture, or other related engineering disciplines.

Each Naval Shipyard has its own learning partnerships with local community colleges or universities that mimic the efforts of PSNS & IMF and Olympic College and PHNSY & IMF and Honolulu Community College.

Methodology

The methodology used to develop the Strategic Plan included partnering with six separate community colleges and universities amongst the four Naval Shipyards. Specifically, each Naval Shipyard has partnered with a community college or university to provide learning opportunities ranging from associate's degrees in conjunction with the Apprentice Program to follow-on undergraduate and graduate degrees. These post-associate's degree opportunities include engineering disciplines, business school programs, and leadership development certification curriculum.

The Navy is aware of the challenges to recruit and retain qualified personnel at the Naval Shipyards. It realizes the increasing difficulty in attracting and retaining engineers into the public sector because of the benefits offered to them in the private sector. However, the Naval Shipyards have been working with their respective local educational institutions to craft workforce development programs to help in this effort. These programs continue to be reviewed and enhanced to retain qualified personnel and develop and recruit a workforce for the Navy of the future.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652, requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD(AT&L) directed that the Extended Range Munitions program be terminated. On October 7, 2008, USD(AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals* Initial Capabilities Document. These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression. When complete, this AoA will address the assessment of appropriate alternatives portion of the report and is the first step towards completing the estimate of necessary resources and program schedule portions of the report.

On December 1, 2008, an interim response was sent indicating that the AoA would be provided to USD(AT&L) in June 2009 for review. However during the AoA process, the AoA Advisory Group determined that additional alternatives should be included to the study and more time would be required to complete the analysis. The AoA is now expected to be reviewed by USD(AT&L) in the first quarter Fiscal Year 2010. The Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 90 days of the USD(AT&L) review.

Please let me know if I can be of further assistance. A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652, requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD(AT&L) directed that the Extended Range Munitions program be terminated. On October 7, 2008, USD(AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals* Initial Capabilities Document. These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression. When complete, this AoA will address the assessment of appropriate alternatives portion of the report and is the first step towards completing the estimate of necessary resources and program schedule portions of the report.

On December 1, 2008, an interim response was sent indicating that the AoA would be provided to USD(AT&L) in June 2009 for review. However during the AoA process, the AoA Advisory Group determined that additional alternatives should be included to the study and more time would be required to complete the analysis. The AoA is now expected to be reviewed by USD(AT&L) in the first quarter Fiscal Year 2010. The Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 90 days of the USD(AT&L) review.

Please let me know if I can be of further assistance. A similar letter has been sent to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652, requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD(AT&L) directed that the Extended Range Munitions program be terminated. On October 7, 2008, USD(AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals* Initial Capabilities Document. These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression. When complete, this AoA will address the assessment of appropriate alternatives portion of the report and is the first step towards completing the estimate of necessary resources and program schedule portions of the report.

On December 1, 2008, an interim response was sent indicating that the AoA would be provided to USD(AT&L) in June 2009 for review. However during the AoA process, the AoA Advisory Group determined that additional alternatives should be included to the study and more time would be required to complete the analysis. The AoA is now expected to be reviewed by USD(AT&L) in the first quarter Fiscal Year 2010. The Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 90 days of the USD(AT&L) review.

Please let me know if I can be of further assistance. A similar letter has been sent to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 30 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2009 House Armed Services Committee Report 110-652, requested the Secretary of the Navy submit a report to the Congressional Defense Committees containing an assessment of appropriate alternatives, an estimate of necessary resources, and suitable program schedule to field a capability to support the Marine Corps requirement for extended range munitions capability.

On July 25, 2008, USD(AT&L) directed that the Extended Range Munitions program be terminated. On October 7, 2008, USD(AT&L) authorized the Navy to conduct an Analysis of Alternatives (AoA) to assess alternative solutions to addressing capability gaps identified in the *Joint Fires in Support of Expeditionary Operations in the Littorals* Initial Capabilities Document. These gaps include engaging moving targets in poor weather, engaging enemy targets in close contact with friendly forces, and achieving volume effects such as suppression. When complete, this AoA will address the assessment of appropriate alternatives portion of the report and is the first step towards completing the estimate of necessary resources and program schedule portions of the report.

On December 1, 2008, an interim response was sent indicating that the AoA would be provided to USD(AT&L) in June 2009 for review. However during the AoA process, the AoA Advisory Group determined that additional alternatives should be included to the study and more time would be required to complete the analysis. The AoA is now expected to be reviewed by USD(AT&L) in the first quarter Fiscal Year 2010. The Navy intends to submit the findings of the AoA in a report to the Congressional Defense Committees within 180 days of the USD(AT&L) review.

Please let me know if I can be of further assistance. A similar letter has been sent to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Copy to:
The Honorable C.W. Bill Young
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 18 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Explanatory Statement to Division C of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329) directs the Secretary of the Navy to provide a report to the Congressional Defense Committees by April 1, 2009, that addresses efforts to control Electromagnetic Aircraft Launching System (EMALS) cost and schedule; an updated schedule for completion of research and development efforts and integration into CVN 78; and an assessment of aircraft launch system options for CVN 78, including cost estimates of those options, if the EMALS program experiences further delays.

The Navy did not submit a report in April 2009 due to an ongoing review by senior Navy leadership of the cost and schedule performance of EMALS development and its effect on the overall CVN 21 program. That review included a detailed assessment of the viability of continuing with EMALS or reverting to steam catapults for CVN 78. The Navy concluded the review in April 2009 with a determination that EMALS would continue as the CVN 78 Class aircraft launching system. This letter forwards the Department of the Navy's report on the EMALS program on behalf of Secretary Mabus.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 18 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Explanatory Statement to Division C of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329) directs the Secretary of the Navy to provide a report to the Congressional Defense Committees by April 1, 2009, that addresses efforts to control Electromagnetic Aircraft Launching System (EMALS) cost and schedule; an updated schedule for completion of research and development efforts and integration into CVN 78; and an assessment of aircraft launch system options for CVN 78, including cost estimates of those options, if the EMALS program experiences further delays.

The Navy did not submit a report in April 2009 due to an ongoing review by senior Navy leadership of the cost and schedule performance of EMALS development and its effect on the overall CVN 21 program. That review included a detailed assessment of the viability of continuing with EMALS or reverting to steam catapults for CVN 78. The Navy concluded the review in April 2009 with a determination that EMALS would continue as the CVN 78 Class aircraft launching system. This letter forwards the Department of the Navy's report on the EMALS program on behalf of Secretary Mabus.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 18 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Explanatory Statement to Division C of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329) directs the Secretary of the Navy to provide a report to the Congressional Defense Committees by April 1, 2009, that addresses efforts to control Electromagnetic Aircraft Launching System (EMALS) cost and schedule; an updated schedule for completion of research and development efforts and integration into CVN 78; and an assessment of aircraft launch system options for CVN 78, including cost estimates of those options, if the EMALS program experiences further delays.

The Navy did not submit a report in April 2009 due to an ongoing review by senior Navy leadership of the cost and schedule performance of EMALS development and its effect on the overall CVN 21 program. That review included a detailed assessment of the viability of continuing with EMALS or reverting to steam catapults for CVN 78. The Navy concluded the review in April 2009 with a determination that EMALS would continue as the CVN 78 Class aircraft launching system. This letter forwards the Department of the Navy's report on the EMALS program on behalf of Secretary Mabus.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUN 18 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Explanatory Statement to Division C of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329) directs the Secretary of the Navy to provide a report to the Congressional Defense Committees by April 1, 2009, that addresses efforts to control Electromagnetic Aircraft Launching System (EMALS) cost and schedule; an updated schedule for completion of research and development efforts and integration into CVN 78; and an assessment of aircraft launch system options for CVN 78, including cost estimates of those options, if the EMALS program experiences further delays.

The Navy did not submit a report in April 2009 due to an ongoing review by senior Navy leadership of the cost and schedule performance of EMALS development and its effect on the overall CVN 21 program. That review included a detailed assessment of the viability of continuing with EMALS or reverting to steam catapults for CVN 78. The Navy concluded the review in April 2009 with a determination that EMALS would continue as the CVN 78 Class aircraft launching system. This letter forwards the Department of the Navy's report on the EMALS program on behalf of Secretary Mabus.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

REPORT TO CONGRESS ON THE ELECTROMAGNETIC AIRCRAFT LAUNCH SYSTEM (EMALS)

Prepared by:
Future Aircraft Carriers Program Office
Program Executive Office for Aircraft Carriers
614 Sicard Street SE Stop 7007
Washington Navy Yard, DC 20376-7000

June 2009

Report Requirement- Explanatory Statement to Division C of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (Public Law 110-329)

ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS) - An additional $24,000,000 is provided to address cost overruns in the Electromagnetic Aircraft Launching System (EMALS) program. Due to continuing concerns about meeting the schedule for integration into PCU Gerald R. Ford (CVN 78), the Secretary of the Navy is directed to submit a report to the congressional defense committees by April 1, 2009, which shall contain a description of efforts to control cost and schedule, an updated schedule for completion of research and development efforts and integration into CVN 78, and an assessment of aircraft launch system options for CVN 78, including cost estimates of those options, if the EMALS program experiences further delays.

Background

The Electromagnetic Aircraft Launch System (EMALS) is being developed for CVN 78 to replace the steam catapult system which is currently used on the USS ENTERPRISE and NIMITZ Class aircraft carriers. EMALS is designed to increase launch system reliability supporting increased sortie generation rate and providing increased high energy launch capability and an expanded launch envelope to support future airwing capabilities. EMALS also reduces shipboard manning requirements, improves aircraft launch system maintainability, and provides better control of forces applied to aircraft. EMALS consists of six major subsystems; Launch Control Subsystem (LCS), Launch Motor Subsystem (LMS), Power Conversion Subsystem (PCS), Prime Power Interface Subsystem (PPIS), Energy Distribution Subsystem (EDS), and Energy Storage Subsystem (ESS).

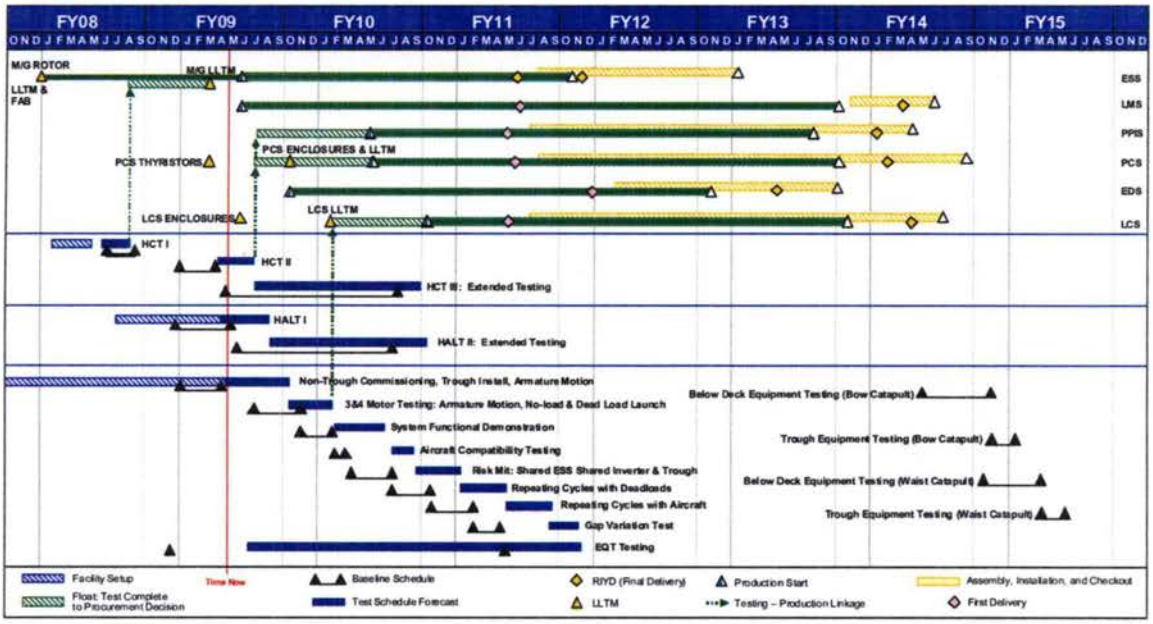
EMALS development began with a competitive prototyping effort between General Atomics and Northrop Grumman Marine Systems in 1999. The Navy down-selected to the General Atomics design in 2004 following completion of approximately 1,500 launch demonstration events conducted on each competitor's system. General Atomics successfully demonstrated concept operations in a relevant environment by launching deadloads from a full-scale, half-length prototype. Based on successful prototyping testing, the Navy funded full development and design of EMALS under a System Development and Demonstration (SDD) contract with General Atomics in 2005, which is scheduled to complete in early 2012. EMALS manufacturing and production efforts began in 2008 with material procurements to support CVN 78 required in yard delivery dates and will extend through 2014 for delivery of all CVN 78 shipset components.

EMALS SDD and Production Schedule

Figure (1) provides the timeline (as of May 2009) for completion of the EMALS SDD Phase test program, equipment production, shipboard installation and shipboard testing. The remainder of the SDD contract covers ongoing developmental efforts (funded with Research, Development, Test and Evaluation (RDT&E) appropriations) to complete subsystem component qualification testing.

EMALS subsystem production efforts (funded with Shipbuilding and Conversion, Navy (SCN) appropriations) include material procurement, equipment manufacture and factory testing, and delivery to shipbuilder. Figure (1) shows a high degree of concurrency between subsystem component qualification testing and procurement/manufacturing efforts. This concurrency results in added risk to the program. The Navy has taken action to mitigate risk due to this concurrency. These actions are described in later sections of this report.

Figure (1) - EMALS SDD & Production Schedule



The green dotted line on Figure (1) indicates decision points following the component qualification testing that lead to start of production of the component.

Cost and Schedule Control

SDD Phase

Poor cost and schedule performance during EMALS development resulted in program cost increase and concurrency in the testing and production phases of EMALS. The high degree of concurrency between SDD and production phases requires continuous assessment of the technical risk remaining to be resolved during testing. This risk resolution will be closely and continuously managed to avoid negative impacts to CVN 78 construction cost and schedule. The Navy has taken the following steps to control cost and schedule variances over the remainder of the EMALS SDD phase.

1. Developed a revised Estimate at Completion (EAC) for SDD and this has been used to develop budget requirements.

2. Reinforced technical governance forums to address issues across stakeholder organizations as a proactive method to control both cost and schedule risk. Some key technical forums and their roles are as follows: (1) Configuration Control Board (CCB) - approves design and configuration changes and manages the resulting funds for changes, (2) Engineering Review Board (ERB) - adjudicates technical issues emerging from pre-manufacture testing and production, (3) Joint Test Planning Group (JTPG) - provides oversight and direction for test planning, (4) Joint Test Team (JTT) - provides oversight and direction for test evolutions.

3. EMALS updates are regularly provided to senior Navy leadership. For transparency, CVN 21 and EMALS program management has reinforced the use of leading indicators to proactively identify potential cost and schedule control issues. EMALS updates are channeled through various program meetings and forums such as: (1) Weekly Integrated Management Team (IMT) meetings, (2) PEO bi-weekly meetings, (3) Three-star Executive Committee (EXCOMM) meetings, (4) Northrop Grumman Shipbuilding, Newport News (NGSB-NN) Quarterly Program Reviews, (5) NAVAIR Test & Evaluation Deep Dives, and (6) Status Updates to the Navy Secretariat. The regular updates provide Navy leadership the opportunity to engage and provide direction earlier in the process to resolve cost and schedule problems.

Production Phase

Figure (1) shows that production scope is scheduled to increase in FY 2009. The Navy will leverage management processes established during the SDD phase by building upon these lessons learned during system production and ship integration. In addition, the Navy has taken steps (described in the following paragraphs) to control EMALS cost and schedule variances during the subsystem production phase.

1. The Navy has implemented a rigorous Production Readiness Review (PRR) process to verify manufacturing processes prior to subsystem production. This process uses an incremental approach to approve component production based on results of component qualification tests and is intended to mitigate schedule risk resulting from concurrency between SDD and production phases. By combining EMALS subsystem PRRs with incremental production decisions, both production cost and schedule risk is managed.

2. Existing Navy systems engineering risk management programs which have been put in place to mitigate EMALS risks during SDD will be used throughout production and shipboard integration. Program risk processes reflect those best practices commonly used among Navy programs and are proven to be successful for managing cost and schedule risk associated with both developmental and integration efforts.

3. The Navy plans to award a fixed price contract for EMALS subsystem production as a cost control measure. Based on the maturation of EMALS subsystems during SDD and progress in improving management and manufacturing processes, the EMALS developer and Navy both agree that pursuing a fixed price contract for equipment production is feasible. Due to the current status of EMALS testing, this fixed price contract arrangement will be established in FY 09 but not definitized until FY 10.

Launch System Options for CVN 78

In January 2009, as a result of developmental test schedule erosion and production estimates provided by the contractor that exceeded Navy estimates, Senior Navy leadership called for a detailed assessment of the viability of continuing with EMALS or reverting to steam catapults for CVN 78. After an extensive review applying Nunn-McCurdy-like methodology, the Navy has decided to continue with EMALS as the CVN 78 Class aircraft launching system. The EMALS SDD efforts and production schedule in Figure (1) supports the CVN 78 construction schedule. While steam catapults remain a technically viable alternative to EMALS, reverting to steam at this point in the CVN 78 design and construction would cause a 12-18 month delay in the ship completion, along with associated costs for redesign and delay. At the time of the results of this assessment and the Navy decision to continue with EMALS, a final certified cost and pricing effort for the steam catapult alternative had not been completed.

Summary

Cost and schedule issues during SDD raised concerns about EMALS meeting the schedule for integration into CVN 78. As with any new technology, EMALS has risk that must be resolved during SDD and managed in production and through integration on CVN 78. The Navy has implemented a number of initiatives to increase management oversight and improve processes in order to control cost and schedule. The SDD and production planning efforts for EMALS currently meet the schedule for integration on CVN 78. Furthermore, the Navy has recently assessed the viability of EMALS and steam catapults and decided that EMALS would remain the CVN 78 Class aircraft launching system.

List of Acronyms

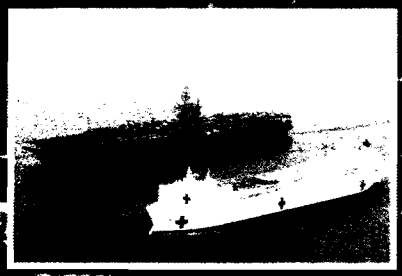
Ao	Materiel Availability
CCB	Configuration Control Board
EAC	Estimate at Completion
EDS	Energy Distribution Subsystem
EMALS	Electromagnetic Aircraft Launching System
EQT	Equipment Qualification Test
ERB	Engineering Review Board
ESS	Energy Storage Subsystem
EXCOMM	Executive Committee
HALT	Highly Accelerated Lifecycle Testing
HCT I	High Cycle Testing Phase I
HCT II	High Cycle Testing Phase II
IMT	Integrated Management Team
JTPG	Joint Test Planning Group
JTT	Joint Test Team
LCS	Launch Control Subsystem
LMS	Launch Motor Subsystem
LLTM	Long Lead Time Material
M/G	Motor/Generator
NGSB	Northrop Grumman Shipbuilding
PCS	Power Conversion Subsystem
PPIS	Prime Power Interface Subsystem
PRR	Production Readiness Review
RDT&E	Research, Development, Test and Evaluation
SDD	System Development and Demonstration
SCN	Shipbuilding and Conversion, Navy

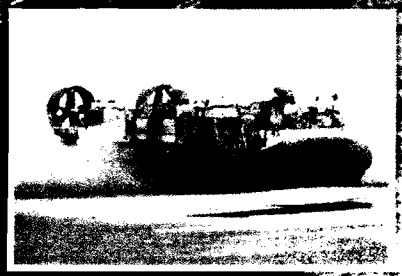
DEPARTMENT OF THE NAVY CONGRESSIONAL REPORT

NDAA 2009, SECTION 908

BUSINESS TRANSFORMATION INITIATIVES FOR THE MILITARY DEPARTMENTS









The following is the Department of the Navy's (DON) Initial Implementation Report for the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2009, Section 908, Business Transformation Initiatives for the Military Departments. This report outlines actions taken and actions planned to:

- Establish an Office of Business Transformation
- Develop and implement a Business Transformation Plan
- Develop and implement a Business Systems Architecture (including systems architecture)
- Develop and implement a Transition Plan

The DON is implementing meaningful and sustainable changes in Navy-Marine Corps business management in order to continue the drive to improve effectiveness, realize efficiencies and provide a more straightforward and tighter focus on business transformation.

In his confirmation hearings, the Under Secretary of the Navy stated that one of his top priorities was to ascertain what DON had achieved with regard to implementing the business transformation guidance provided in the NDAA for Fiscal Years 2008 and 2009. The leadership of the Department of the Navy fully understands the intent of NDAA language and strongly supports it. It will take time to align and integrate the many good efforts throughout DON into a comprehensive business transformation plan that guides the development of enterprise-wide business performance improvement. DON is confident that the implementation of Section 908 will further mature and advance business transformation efforts.

DON Business Transformation Leadership

The new Under Secretary of the Navy, in his role as CMO, has been researching the history of Defense Business Transformation and assessing the efforts DON has made thus far to decide how to best develop a business transformation plan that integrates DON business operations to result in improved performance. The DON's challenge will be to support current operations and processes while simultaneously putting in place new processes and systems to truly transform our way of doing business. Progress and information to date includes:

- DON has established the Under Secretary of the Navy to be the Chief Management Officer (CMO). As the Under Secretary position has been vacant for over two years, one of the initial challenging tasks is to re-introduce the Under Secretary position into DON daily decision making processes. As the DON's Chief Management Officer (CMO), the Under Secretary of the Navy supervises the Deputy Chief Management Officer (DCMO) and the Director, Office of Business Transformation. The DON CMO chairs the Business Transformation

Council and oversees the management and improvement of the DON's business operations.

- DON established the Deputy Chief Management Officer (DCMO) position 31 December 2008. This position has been filled by a very talented and highly qualified executive who has worked hard to establish our business transformation processes during the Presidential Transition period. Our administration places a very high level of importance on the position and the function. The Secretary of the Navy has made the decision to place a political appointee as the DCMO and fill out the organization with a small contingent of talented professionals. In order to raise the profile of the DON DCMO, DON has created the new position of Deputy Under Secretary of the Navy for Business Operations and Transformation, who will also serve as the DCMO.

- Because the DCMO will play such an important role in executing DON Business Transformation efforts, the Under Secretary has carefully articulated the duties and responsibilities of this position. The major role of the DCMO is to initiate and manage strategic structural advancements in the Navy-Marine Corps business management portfolio. The DCMO will:

    - Bring together processes and organizations for the accomplishment of strategic and corporate business objectives that are not normally achieved within the traditional business lines.
    - Serve as the primary architect of DON business transformation strategy. The DCMO will assist the CMO in effectively and efficiently structuring DON strategic business operations.
    - Identify opportunities to streamline, align, and improve core business processes and systems to achieve efficiencies in DON business operations and orchestrate the actions required to prosecute these opportunities, deploying continuous process improvement methodologies where appropriate.
    - Synchronize, integrate, and coordinate business processes and position the CMO to provide the strategic direction and opportunities for leap ahead and innovative advancement in DON business operations.
    - Establish the organization and processes to enable DON leadership to manage business operations using key performance indicators and metrics, and assess progress against these goals. The organization and processes are to be designed to add the power and energy to move high payoff concepts to fruition.
    - Take active measures to assure these efforts do not add an additional management layer to existing business processes.

- The Business Transformation Council (BTC) was established on 29 June 2006 with the Under Secretary/CMO as the Chair. The mission of the BTC is to focus and align DON enterprise level transformation initiatives and provide for meaningful and sustainable structural changes in Navy-Marine Corps business

management. Just as the Defense Business Systems Management Committee (DBSMC) has provided a senior DOD forum to align transformation efforts, the BTC will provide the senior DON forum in which business transformation efforts that cross organizational and/or functional boundaries can be assessed, approved and accelerated.

Office of Business Transformation

The Department established the DON Office of Business Transformation (OBT) on 31 December 2008. The DCMO is the Director of the Office of Business Transformation. The OBT's initial efforts have been focused in the following areas:

- Leveraging existing DON organizational processes and integrating the acquisition, finance, human resources, and logistics functions to increase effectiveness and efficiency of DON business operations.

- Defining enterprise policies for business processes that adjudicate acquisition, financial, and logistics practices that are functionally optimized and complimentary to the end-to-end business strategy and enable acquisition and financial regulation and policy development to support the DON business enterprise.

- Establishing, maintaining, and monitoring business value metrics that measure the effectiveness and efficiency of these business processes as implemented in regulation and operating procedures.

Business Transformation Plan

The DON's Business Transformation Plan will include strategies and performance based business initiatives that drive continuous improvement in business operations. The DON is reengineering its approach to business transformation by migrating from a systems-centric approach to a process-centric approach based on capabilities across its business missions. This plan generates business operations improvement by taking action to identify and close process and system gaps within each business mission, as well as through horizontal integration across business mission areas. The DON will use this approach in carrying out the FY2009 NDAA § 908 business transformation initiative, which includes: a business transformation plan, a business enterprise architecture (that includes systems architecture), and a transition plan.

There already exists a solid foundation for the day-to-day execution of DON business operations. The scope of the DON business operations is comprised of five business missions—or key management functions / core processes—necessary to support the warfighter:

- Human Resource Management - This business mission is directed through the Assistant Secretary of the Navy for Manpower and Reserve Affairs. Key on-

going business initiatives include: establishment of centralized information technology investment; modernization of military personnel and pay systems; consolidation of data management and integration systems; development of web based career management and interactive detailing systems; and improvements in civilian recruitment and hiring processes.

- Real Property and Installations Lifecycle Management – This business mission is directed through the Assistant Secretary of the Navy for Installations and Environment. Key on-going business initiatives include: real property inventory requirements; real property acceptance requirements; real property construction in progress requirements; environmental liabilities recognition, valuation, and reporting requirements; and hazardous materials process controls and information management requirements.

- Weapons Systems Lifecycle Management – This business mission is directed through the Assistant Secretary of the Navy for Research, Development and Acquisition. Key on-going business initiatives include: improvements in the acquisition governance process; establishment of cross systems command initiatives and a governance forum; efforts to strengthen performance analysis; an initiative to strengthen upfront systems/supportability engineering; an initiative to improve organizational alignment; and a major effort in acquisition workforce reform.

- Financial Management – This business mission is directed through the Assistant Secretary of the Navy for Financial Management and Comptroller. A key transformation initiative is the on-going effort to achieve audit readiness on DON's financial statements; auditability will be a culmination of improving business processes and systems and strengthening corresponding internal controls. The current primary focus of this effort is achieving a favorable audit opinion on DoN's Statement of Budgetary Resources (SBR), including Fund Balance with Treasury auditability. The Marine Corps is presently undergoing an audit on its SBR.

- Materiel Supply and Service Management – This business mission is directed through the Assistant Secretary of the Navy for Research, Development, and Acquisition. Key on-going initiatives include: logistics modernization and total life-cycle management.

A critical aspect of our business transformation effort is to build upon these and numerous other solid, on-going initiatives and to add the energy and resources to make the truly transformational business changes that the DON believes necessary for success.

Enterprise Architecture

The Department of the Navy Enterprise Architecture (DON EA) will perform a critical role by depicting DON business operation processes in order to identify opportunities for budget, finance, accounting and human resource process integration and informing our business systems investment. To be successful, development of the DON EA will require persistent, active leadership and the Under Secretary intends to remain engaged and to ensure that the DON EA activities result in a product that supports the business transformation vision.

EA efforts are a key factor in the transformation of government to a business-value driven approach. The DON EA complies with Federal and DoD architectures and provides the foundation from which DON, Navy and Marine Corps programs and initiatives will be aligned. Further, it provides a blueprint for the continued development, maintenance, and facilitation of the DON Enterprise Level transformation that helps to ensure the right capabilities, resources and materiel are rapidly delivered to the warfighter.

Achieving a more agile and integrated organization, whose systems are aligned with its strategies, requires a shift from the existing approach of isolated "stove-piped" requirements development to one in which organizations understand and embrace cross-community development. Federally mandated EA is a strategically-based means for DON to capitalize upon vast existing technological assets and to make informed decisions about investments in new technology in support of the warfighter.

At the crux of this is the dynamic relationship between DoD Business Enterprise Architecture (BEA) and the DON EA, which defines the Navy's transformation priorities and the business capabilities required to support those priorities.

As such, the manner in which the EA is developed and used is crucial to its success. Technology and business units must work together as the development of the DON EA evolves. The DON EA will be enhanced and maintained through the development of EA governance processes for compliance and is considered an integral part of developing weapons, intelligence, enterprise services, and business systems. DON will use an incremental approach leveraging existing efforts to lay the foundation for a relevant, sustainable DON EA. The expected strategic value of using the DON EA are to:

- Ensure that information technology investment management aligns with strategic business capabilities as required by the National Defense Authorization Act and the Clinger-Cohen Act, and supports Office of Management and Budget and Government Accountability Office policy.

- Ensure compatibility, flexibility, and interoperability among all DON networked elements.

- Avoid duplicative IT investment.

- Support the Clinger-Cohen Act of 1996 legislation designed to improve the way the federal government acquires and employs IT.

- Support the Capital Planning and Investment Control process to ensure DON mission is achieved through consistent decision making processes for Investments.

- Provide consistent support to the critical decision making processes of the DON.

- Improve and promote broad use of common information sharing to ensure users can locate and access the right information at the right time.

- Support alignment of activities, processes, systems, and data to other DoD components and government agencies.

DON is finalizing an Information Technology (IT) Portfolio Management Policy that will provide the governance structure and establish the investment management reform necessary to execute the DON business systems transition plan.

Business Transformation Plan

A business transformation plan will be developed to serve as a roadmap leading from the present generation of business systems to a future set of systems developed to support integrated management operations. The DON will implement a portfolio management process for business operations, in accordance with DoD and SECNAV direction, that will transition DON from a model in which information technology acquisition projects are managed individually and are sometimes not aligned with each other, to an environment where projects are managed collectively, are aligned to yield economies of scope and scale, and have traceable support for current policy and strategic guidance. The transition plan is an essential element of the portfolio management process for business operations. It is the roadmap, within the business enterprise architecture blueprint, that provides integrated schedules, metrics and resources to guide solutions releases to transition to the target business capabilities. Specifically, the business transformation plan will:

- Provide a framework for enterprise decision making

- Leverage existing organizational processes

- Serve as an authoritative reference of portfolio changes

- Document efficient, effective resource management

- Help align acquisition processes to portfolio management, budget and execution

- Provide visibility into future years alignment, consolidation and budgeting requirements

As this report is submitted, the leadership team for this administration is still being assembled with the Secretary and Under Secretary of the Navy having been in office for less than two months. A key priority of the Under Secretary of the Navy is to execute his Chief Management Officer and Business Transformation initiatives in a manner that transforms the Department of the Navy toward the efficiency and effectiveness necessary to meet DON obligations to its Sailors, Marines, their families, and to the Nation.

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 22, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Section 124 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the Future Aircraft Carriers Program (CVN 21) because this major shipbuilding program began before the date of the enactment of Section 124. However, in the interest of establishing a full and open dialogue with Congress regarding all shipbuilding matters, the Department of the Navy has prepared the enclosed CVN 78 Production Readiness Review for your consideration.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure

Copy to:
The Honorable Thad Cochran
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 22, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Section 124 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the Future Aircraft Carriers Program (CVN 21) because this major shipbuilding program began before the date of the enactment of Section 124. However, in the interest of establishing a full and open dialogue with Congress regarding all shipbuilding matters, the Department of the Navy has prepared the enclosed CVN 78 Production Readiness Review for your consideration.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure

Copy to:
The Honorable John S. McCain
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 22, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Section 124 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the Future Aircraft Carriers Program (CVN 21) because this major shipbuilding program began before the date of the enactment of Section 124. However, in the interest of establishing a full and open dialogue with Congress regarding all shipbuilding matters, the Department of the Navy has prepared the enclosed CVN 78 Production Readiness Review for your consideration.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

September 22, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Section 124 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the Future Aircraft Carriers Program (CVN 21) because this major shipbuilding program began before the date of the enactment of Section 124. However, in the interest of establishing a full and open dialogue with Congress regarding all shipbuilding matters, the Department of the Navy has prepared the enclosed CVN 78 Production Readiness Review for your consideration.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Ray Mabus

Enclosure

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

REPORT TO CONGRESS ON

GERALD R. FORD (CVN 78)

PRODUCTION READINESS REVIEW (PRR)

Prepared by:
Future Aircraft Carriers Program Office
Program Executive Office for Aircraft Carriers
614 Sicard Street SE Stop 7007
Washington Navy Yard, DC 20376-7000

June 2009

TABLE OF CONTENTS

Section		Page
I. Report Requirement		3
II. Report Overview		3
III. Assessment Discussion		4
1.	Design Maturity	4
2.	Maturity of Developmental System	5
3.	Shipyard Facilities and Workforce	7
4.	Estimated Cost to Complete and Adequacy of Budget	7
5.	Estimated Delivery Date	8
6.	Adequacy of Process and Metrics to Manage Risk	8
IV. Summary		8

I. Report Requirement

This report provides the results of Production Readiness Review as described in Section 124 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2008, Public Law 110-181. Section 124 requires submission to Congress of a Production Readiness Review report concurrent with approval of the start of construction of the first ship of a major shipbuilding program. Section 124 does not apply to the CVN 78 program because construction of the first ship of the class, GERALD R. FORD (CVN 78) began before Section 124 took effect. However, because the CVN 78 program represents a significant investment for the Department of Defense, the Navy has prepared a CVN 78 Production Readiness Review report in accordance with Section 124.

II. Report Overview

The Future Aircraft Carriers Program (CVN 21) uses a design-build strategy for GERALD R. FORD (CVN 78) design and construction. Section 121 of the NDAA for FY 2001, Public Law 106-398, authorized advance procurement and advanced construction of CVNX-1, permitting procurement of long lead materials and advanced construction of modular structural units. This authority reduces the overall construction costs of the ship and supports continuation of critical construction skills in between aircraft carrier contract awards, avoiding significant added program cost due to a destabilized industrial base and construction workforce. The CVNX Program was restructured into the CVN 21 Program in 2002, following a comprehensive Program Review directed by the Secretary of Defense. Advance construction of CVN 78 began in August 2005. The CVN 78 Detail Design and Construction contract was awarded on September 10, 2008. The CVN 78 design requirements are stable and detail design efforts are proceeding as planned. The CVN 78 design maturity has been proven based on an accumulation of Critical Design Reviews (CDRs) and successful completion of a Production Readiness Review (PRR). The CVN 78 developmental systems needed to support construction are sufficiently mature. An assessment of the shipbuilder's facility and workforce affirms adequacy of resources and industrial capability.

CVN 78 delivery is planned for September 2015. The program is on schedule and has an adequate funding plan to accomplish construction. The CVN 21 program has satisfactory processes to identify, mitigate, and manage risk. A Flag-level PRR was conducted on November 21, 2008 at Northrop Grumman Shipbuilding (NGSB), Newport News, VA to assess the shipbuilder's readiness to construct CVN 78. During the PRR, NGSB-NN provided the Navy with adequate information to assess the sufficiency of the labor and facility resources available, and also successfully demonstrated production planning and risk management processes to support construction of CVN 78. The Navy determined that there are no production-related issues that will prevent production of CVN 78.

Following the PRR, senior Navy leadership in January 2009 commenced an extensive review of cost and schedule performance of the Electromagnetic Aircraft Launching System (EMALS) development and its effect on the overall CVN 21 program. That review included a detailed analysis of the viability of continuing with EMALS, or reverting to steam catapults for CVN 78. While awaiting the outcome of that review, the Navy delayed submission of the ship's construction certification. The Navy subsequently completed the review in April 2009 with a determination that EMALS would continue as the CVN 78-class aircraft launching system. A similar review and determination was completed in September 2009 for the Advance Arresting Gear (AAG).

This report and information contained within provides the findings that the CVN 78 PRR supports construction of CVN 78.

III. Assessment Discussion

1. Design Maturity

The GERALD R. FORD (CVN 78) Class aircraft carrier design uses the NIMITZ-class hull form, with added system enhancements to improve warfighting and operational capability, quality of life, and reduce crew size and total ownership cost. The CVN 78 ship design specifications were approved in September 2006 by the Naval Sea Systems Command (NAVSEA) Technical Authority.

The CVN 78 Class design uses a Computer-Aided Design and a 3-Dimensional (3D) Product Model for the definition, analysis, and documentation of CVN 78 design products. Complete design of the ship using the 3D Product Model is achieved in three phases: concept, arrangement, and detail. In the concept phase, the 3D Product Model provides hull and structural dimensions and materials, as well as space and weight reservations for large components and piping. In the arrangement phase, the 3D Product Model adds dimensions and materials for smaller components, furniture, wireways and hangers. In the detail phase, the 3D Product Model adds dimensions and material information, and the final details that are used to develop ship construction drawings and work details. The 3D Product Model design was 94 percent complete as of April 2009 (shown in Figure 1) with all design zones planned to complete in the first quarter of FY 2010.

The ship construction drawing schedule is consistent with the build strategy (which integrates advance construction activities) and is sequenced in the shipbuilder's Integrated Master Schedule to complete drawings in time to meet the ship construction need date. CVN 78 ship construction drawings were approximately 32 percent complete as of February 2009 and are projected to complete in 2013, which meets construction need dates.

The CVN 78 ship design efforts are proceeding as planned and products are being delivered in a timely manner. Ninety one percent of the 3D Product Model detail design products and 96 percent of the ship construction drawings accomplished to date have been completed on schedule. Design products that have completed late are mainly due to changes in the construction plan which have accelerated design product need dates but are not negatively impacting the overall ship construction schedule due to appropriate schedule margin that is built in between design product completion and construction start dates.

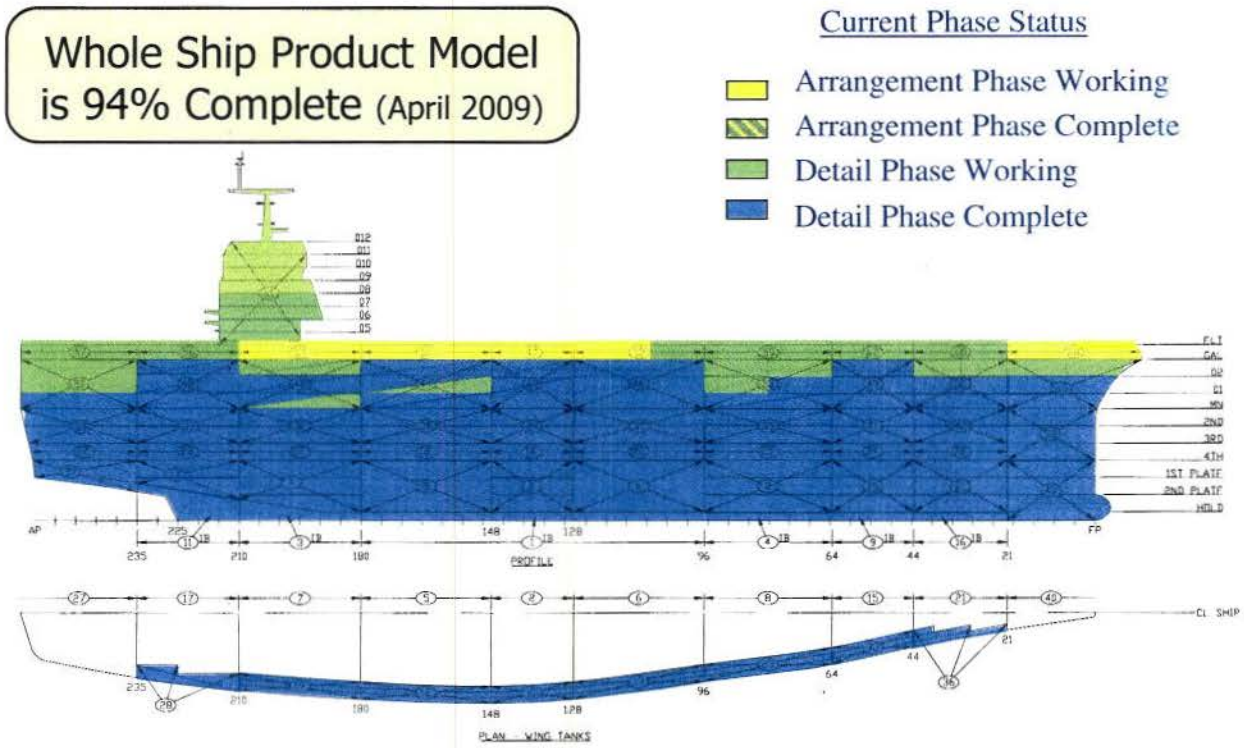


Figure 1

2. Maturity of Developmental System

The Future Carriers Program (CVN 21) established a Critical Technology Integrated Product Team (IPT) at Milestone B (June 2004) to provide oversight for design maturation of developmental systems critical to meeting CVN 78 operational requirements. The current critical technologies/capabilities maturing for integration into the lead ship include: EMALS, Advanced Arresting Gear (AAG), Dual Band Radar (DBR), Joint Precision Aircraft Landing System (JPALS), Evolved Sea Sparrow Missile

Joint Universal Weapon Link (ESSM JUWL) (formerly P3I Data link), enhanced flight deck materials, and Advanced Weapons Elevator (AWE). All critical developmental systems, with the exception of the AAG, DBR, JUWL, and AWE, have reached a level of design maturity that no longer requires Critical Technology IPT oversight. Each of the remaining systems is being tracked by the IPT, and is projected to reach the same acceptable level of design maturity as the rest of the systems by FY 2011, well in advance of system required in-yard dates.

To mitigate schedule risk for integration of developmental systems, the CVN 78 design-build strategy uses a Preplanned Product Improvement (P3I) approach that establishes space and weight parameters in the platform design for maturing developmental systems.

The design maturity for the AAG system is projected to be sufficient for ship integration by the required in-yard date of FY 2011. Extended Reliability Testing (ERT) will be performed in FY 2009, reducing ship integration risk by verifying system performance and installation processes and procedures. Jet Car Track Site (JCTS) testing in FY 2010 will further reduce integration risk by validating the full range of system performance, as well as validating reliability and maintainability analyses. Recognizing that concurrent testing and production adds integration risk, the ERT will complete prior to Long Lead Time Material procurement and JCTS commissioning, including multiple dead load arrestments. Although previous poor contractor cost and schedule performance has reduced schedule margin, current contractor performance supports ship integration risk reduction and required in yard dates.

The DBR for CVN 78 is being procured in conjunction with DBR for DDG 1000 Class ships. The Critical Technology IPT and CVN 21 Warfare System Engineering Technical Team have concurred that the DBR technical risk as low.

The ESSM JUWL has been successfully tested in a laboratory environment and is on track for Preliminary Design Review (PDR) in August 2009 and Critical Design Review (CDR) in August 2010.

The AWE will achieve system maturity in Dec 2009 following the successful completion of environmental qualification testing (shock, vibration, and electromagnetic interference). Installation and shipboard test of lead units will begin May 2010.

The design maturity of the EMALS is sufficient to begin integration of the system into the CVN 78. Testing has confirmed the electrical performance of the Energy Storage Subsystem motor-generator. Factory Acceptance Testing of System Development and Demonstration (SDD) test articles is providing information on both component performance and manufacturing process maturity. Subsystem level testing continues to validate performance. However, a high degree of concurrency with equipment manufacturing and system test does present risk to the CVN 78 construction cost and schedule. These risks have been addressed by implementing a rigorous PRR

process on a component basis. Individual component production decisions are linked to the completion of specific test events wherever possible. By combining these PRRs with incremental production decisions, production risk can be effectively managed.

3. Shipyard Facilities and Workforce

All CVN 78 Class aircraft carriers will be constructed by NGSB-NN. NGSB-NN has a detailed workload plan that balances effort across product lines throughout the shipyard to maintain a stable workforce while accomplishing naval ship overhaul and construction work, including the construction of the CVN 78. The Navy reviews quarterly submittals of NGSB's Labor Resource Management (LRM) plan that projects the resource needs of all projects in the shipyard. The resources allocated for CVN 78 in the LRM are consistent with Navy estimates of the workload required to complete design, construction, test, and delivery.

NGSB has taken several proactive actions to enhance shipyard facility capacity in planning for CVN 78 construction, including the construction of 236,102 square feet (equivalent to about four football fields) of covered assembly and outfitting facilities to enable efficient construction of CVN 78. Additionally, NGSB has enhanced its effective capacity by qualifying other shipyards, including General Dynamics Electric Boat, NGSB (Gulf Coast), and Atlantic Marine Holding Company. The Navy also contractually incentivized NGSB to invest corporate capital in facility improvements to further mitigate construction schedule risk and cost.

The CVN 78 Class design has been developed with specific focus on technology improvements and design parameters for efficient construction, minimizing unique expertise. The use of a 3-D Computer Aided Tridimensional Interactive Application (CATIA) product model helps to identify any interference between components that could impact construction efficiency. A visualization of this model assists construction trades in developing their detailed build plans. NGSB has also updated training to accommodate construction process changes from NIMITZ Class to CVN 78 Class work.

To reduce schedule risk during the Construction Planning period, NGSB demonstrated and validated improved manufacturing processes by fabricating structural units. As of the end of April 2009, the shipbuilder has started construction of approximately 44 percent of the structural units, approximately 36 percent of which have been completed. Additionally, over 10,000 pipe details have been fabricated, thereby validating construction processes and training the workforce.

4. Estimated Cost to Complete and Adequacy of Budget

CVN 78 full funding is incrementally funded over four years as prescribed in P.L. 109-364, the FY 2007 National Defense Authorization Act, with the first year of full funding in FY 2008. The current end cost for CVN 78 as reflected in the Fiscal Year

2010 President's Budget is $10,845.8 million, which is within the cost cap mandated by Congress. This amount includes $ 3,693.2 million appropriated in FY 2001 through FY 2007 for Advance Procurement, $2,685.0 million appropriated in FY 2008, $2,684.6 million appropriated in FY 2009 and $739.3 million requested in the FY 2010 President's Budget. A future budget request is expected to include $1,043.8 million for the remaining year of full funding.

5. Estimated Delivery Date

The CVN 78 planned delivery date is September 30, 2015. The Navy has taken several steps to reduce schedule risk to delivery, including funding the procurement of long lead material and the placement of a construction preparation contract including advance construction planning and advance construction efforts.

6. Adequacy of Process and Metrics to Manage Risk

The CVN 21 Risk Management Program uses a process developed from the Defense Acquisition Guidebook and the Risk Management Guide for DoD Acquisition. The management approach addresses program cost, schedule, and technical risk at the lowest level in the organization to provide a thorough understanding of mitigation options and timely information to support decision making.

The CVN 21 Program has established a Risk Management Working Group that validates high and moderate risks, manages the approval process, and facilitates Program Risk Board (PRB) meetings. The PRB approves risk mitigation plans with significant and/or substantial impacts to cost, schedule, and/or performance. Based on the recommendations of the PRB, the Program Manager weighs options to mitigate risk and manage construction.

IV. Summary

The CVN 21 Program uses a design-build strategy for GERALD R. FORD (CVN 78) design and construction. CVN 78 design requirements are stable and detail design efforts are proceeding as planned. The CVN 78 design maturity has been proven based on an accumulation of CDRs. The CVN 78 developmental systems needed to support construction are sufficiently mature. In addition, the CVN 21 program has a robust, active Risk Program in place to effectively identify, mitigate, and manage program risks. An assessment of the shipbuilder's facility and workforce affirms adequacy of resources and industrial capability. A Flag-level Production Readiness Review was successfully conducted at NGSB-NN on November 21, 2008, demonstrating the ability of shipbuilder to support construction of CVN 78. The program is on schedule and has adequate funding to accomplish construction. CVN 78 delivery is planned for September 2015.

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

June 26, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report the results of the Littoral Combat Ship (LCS) mission package development study and the plan for the operational employment of the Mine Countermeasures (MCM) mission package independent of LCS to the congressional defense committees by June 30, 2009. Given the complexity of the effort, Navy received congressional concurrence with a year-long, phased approach.

The first phase, to analytically assess the utility of operating a MCM mission package from a shore site, is complete and shows significant operational capability both from foreign and domestic ports. Additional phases in progress include MCM demonstrations from shore, U.S. Air Force aircraft MCM mission package transportation verification, and assessing deployment of the MCM package from alternate Navy and Commercial platforms.

Upon completion of all phases associated with this study, a final report of the results will be provided to the congressional defense committees no later than February 16, 2010. A similar letter has been sent to Chairmen Inouye, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Ray Mabus

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

June 26, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report the results of the Littoral Combat Ship (LCS) mission package development study and the plan for the operational employment of the Mine Countermeasures (MCM) mission package independent of LCS to the congressional defense committees by June 30, 2009. Given the complexity of the effort, Navy received congressional concurrence with a year-long, phased approach.

The first phase, to analytically assess the utility of operating a MCM mission package from a shore site, is complete and shows significant operational capability both from foreign and domestic ports. Additional phases in progress include MCM demonstrations from shore, U.S. Air Force aircraft MCM mission package transportation verification, and assessing deployment of the MCM package from alternate Navy and Commercial platforms.

Upon completion of all phases associated with this study, a final report of the results will be provided to the congressional defense committees no later than February 16, 2010. A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Ray Mabus

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

June 26, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report the results of the Littoral Combat Ship (LCS) mission package development study and the plan for the operational employment of the Mine Countermeasures (MCM) mission package independent of LCS to the congressional defense committees by June 30, 2009. Given the complexity of the effort, Navy received congressional concurrence with a year-long, phased approach.

The first phase, to analytically assess the utility of operating a MCM mission package from a shore site, is complete and shows significant operational capability both from foreign and domestic ports. Additional phases in progress include MCM demonstrations from shore, U.S. Air Force aircraft MCM mission package transportation verification, and assessing deployment of the MCM package from alternate Navy and Commercial platforms.

Upon completion of all phases associated with this study, a final report of the results will be provided to the congressional defense committees no later than February 16, 2010. A similar letter has been sent to Chairmen Levin, Skelton, and Inouye. If I can be of any further assistance, please let me know.

Sincerely,

Ray Mabus

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

June 26, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Explanatory Statement of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329), directed the Navy to report the results of the Littoral Combat Ship (LCS) mission package development study and the plan for the operational employment of the Mine Countermeasures (MCM) mission package independent of LCS to the congressional defense committees by June 30, 2009. Given the complexity of the effort, Navy received congressional concurrence with a year-long, phased approach.

The first phase, to analytically assess the utility of operating a MCM mission package from a shore site, is complete and shows significant operational capability both from foreign and domestic ports. Additional phases in progress include MCM demonstrations from shore, U.S. Air Force aircraft MCM mission package transportation verification, and assessing deployment of the MCM package from alternate Navy and Commercial platforms.

Upon completion of all phases associated with this study, a final report of the results will be provided to the congressional defense committees no later than February 16, 2010. A similar letter has been sent to Chairmen Levin, Skelton, and Murtha. If I can be of any further assistance, please let me know.

Sincerely,

Ray Mabus

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO

15 September 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 71 facilities housing medical hold and holdover personnel were inspected in July 2009, and identified $0.00 in deficiencies. All quarters for medical hold and holdover personnel will be inspected again in November 2009, as per statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Skelton and Inouye.

Sincerely,

P.K. Roark
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable C.W. Bill Young
Ranking Member
Subcommittee on Defense
Committee on Appropriations

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO

15 September 2009

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 71 facilities housing medical hold and holdover personnel were inspected in July 2009, and identified $0.00 in deficiencies. All quarters for medical hold and holdover personnel will be inspected again in November 2009, as per statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Inouye.

Sincerely,

P.K. Roark
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John McHugh
Ranking Member
Committee on Armed Services

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO

15 September 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 71 facilities housing medical hold and holdover personnel were inspected in July 2009, and identified $0.00 in deficiencies. All quarters for medical hold and holdover personnel will be inspected again in November 2009, as per statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Levin, Murtha and Skelton.

Sincerely,

P.K. Roark
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member
Subcommittee on Defense
Committee on Appropriations

DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-7300

IN REPLY REFER TO

15 September 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman,

As directed by Section 1662 of the National Defense Authorization Act for FY08 [P.L. 110-181], the enclosed report provides the requested information regarding the required semi-annual inspection by the Navy Medical Inspector General of Department of the Navy quarters and housing facilities where recovering service members reside.

The report states that a total of 71 facilities housing medical hold and holdover personnel were inspected in July 2009, and identified $0.00 in deficiencies. All quarters for medical hold and holdover personnel will be inspected again in November 2009, as per statute, to ensure compliance with applicable quality standards.

Please let me know if I may be of further assistance. A copy of this letter is also being provided to Chairmen Inouye, Murtha and Skelton.

Sincerely,

P.K. Roark
Medical Inspector General
Captain, Nurse Corps
United States Navy

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member
Committee on Armed Services

Executive Summary

Navy Medical Inspector General Report on Inspections of Military Quarters Housing Medical Hold and Medical Holdover Personnel (Inspections performed July 2009)

Military Quarters Housing Medical Hold and Holdover Personnel

Number of Facilities Inspected: 71

	Assignment		Baseline		Special Medical	
Component	Met Standard*	Not Met Standard*	Met Standard*	Not Met Standard*	Met Standard*	Not Met Standard*
Navy	610	0	610	0	610	0

* **Represents the number of medical hold or holdover personnel whose quarters have or have not met the housing standard.**

Cost to bring inspected facilities to standard ($ Thousands): $0

Component	Assignment	Baseline	Special Medical
Navy	$0	$0	$0

Per the Bureau of Medicine and Surgery (BUMED) memo dated 09 June 2009 and the National Defense Authorization Act of January 16, 2008, Bureau of Medicine and Surgery (BUMED) medical activities were tasked, in coordination with Commander Navy Installation Command (CNIC) and Commander Headquarters Marine Corps (CMC), to inspect quarters housing medical hold and holdover personnel, using standards and checklists developed by the Senior Oversight Committee's Line of Action (LOA) 5 Working Group. All inspected quarters housing medical hold or holdover personnel met, or will meet, pending renovations, the applicable quality standards of assignment and were appropriate for the service member's medical condition.

Inspection Reports

Report Organization:

1. Service Definitions/Terms of Reference
2. Assignment of Personnel to Quarters for Medical Hold and Holdover Status
3. Facilities Used to House Personnel
4. Military Quarters Housing Medical Hold and Holdover Personnel

Appendix 1: Quarters Housing Medical Hold and Holdover Checklist

1. Service Definitions/Terms of Reference:

Inpatient - An individual, other than a transient patient, who is admitted (placed under treatment or observation) to a bed in a Medical Treatment Facility that has authorized or designated beds for inpatient medical or dental care. A person is considered an inpatient status if formally admitted as an inpatient with the expectation that he or she will remain at least overnight and occupy a bed even though it later develops that the patient can be discharged or transferred to another hospital or does not actually use a hospital bed overnight. This does not include a patient administratively admitted to the hospital for the purposes of a same day surgery procedure.

Outpatient - An individual receiving healthcare services for an actual or potential disease, injury, or life style-related problem that does not require admission to a medical treatment facility for

inpatient care.

Medical Hold - Enlisted personnel housed in a Medical Hold Company (MHC) under the cognizance of the MTF whose current condition precludes them from returning to full duty.

Medical Holdover - Retention of reservists on active duty to receive medical treatment for service-connected injuries, illnesses and/or disease until determined Fit for Duty by the Benefit Issuing Authority (BIA), Senior Medical Officer (SMO) and/or Medical Status Review Officer (MSRO), or until final disposition is determined by the PEB.

Assignment - DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that Medical Hold and Holdover personnel shall be assigned/referred to housing that exceeds or meets the applicable quality standards. Additionally this housing should be appropriate to their expected duration of treatment; supports a non-medical attendant, if authorized; supports accompaniment by their dependents; and appropriate for their pay-grade.

Baseline - DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that housing must be in good overall condition with no major problems with any of the building systems. Additionally, it is important for personnel to be able to adequately control the temperature of their housing units and there shall be no mold, exposed lead-based paint, unsealed asbestos, inadequate air circulation, and any other environmentally/safety/health hazard.

Special Medical Requirements - DoD Housing Inspection Standards for Medical Hold and Holdover Personnel included in SECDEF Memo dtd September 18, 2007 state that Medical Hold and Holdover personnel may have certain medical conditions that result in various functional limitations. For these members, it is essential that special accommodations and services be provided as an integral part of their medical treatment plan as determined by the primary care physician, patient, and chain of command.

Medical Evaluation Board (MEB) - A body of physicians attached to one of the medical treatment facilities (MTFs) whose commander or commanding officer (CO) has been expressly designated to hold "convening authority" (CA) for MEBs to identify members whose physical and/or mental qualification to continue on full duty is in doubt or whose physical and/or mental limitations preclude their return to full duty within a reasonable period of time. They are convened to evaluate and report through on the diagnosis; prognosis for return to full duty; plan for further treatment, rehabilitation, or convalescence; estimate of the length of further disability; and medical recommendation for disposition of such members.

Department of the Navy Disability Evaluation System (DES) – A case usually enters the Department of the Navy DES when a Medical Evaluation Board (MEB) is dictated for the purpose of evaluating the diagnosis and treatment of a member who is unable to return to military duty because the member's condition most likely is permanent, and/or any further period of temporary limited duty (TLD) or LIMDU is unlikely to return the member to full duty. A condition is considered permanent when the nature and degree of the condition render the member unable to continue naval service within a reasonable period of time (normally 8-12 months or less). Note: The term "permanent" does not necessarily mean the condition is unfitting.

Physical Evaluation Board (PEB) – The PEB provides three stages of review (a documentary review, a

due process hearing upon demand, and appeal by petition) for a Service member whose physical conditions have been referred to it by a medical evaluation board (MEB) of an MTF that believes that the member's physical condition raises questions about his ability to perform the duties of his or her office, grade, rank or rating.

- Referral of a Medical Evaluation Board report to the PEB can come from two sources; i.e. Limited Duty board reports referred for PEB evaluation by service headquarters, and Medical Board reports submitted directly to the PEB by a medical treatment facility (MTF).

Distinguishing "Fit for Duty" from "Fitness for Continued Naval Service"

- "Fit for Duty" refers to a pronouncement by a physician or by an MEB that a patient previously on light or LIMDU has healed from the injury or illness that necessitated the member's serving in a medically restricted duty status.

- "Fitness for Continued Naval Service" is a finding made exclusively by the Department of the Navy PEB in determining an active duty service member's ability to continue serving in the Navy or Marine Corps.

2. Assignment of Personnel to Quarters for Medical Hold and Holdover Status:

The disposition and assignment of personnel post inpatient status is contingent on the member's medical status, recommendation of treating physician, treatment requirements, family status, and service component. The following is the BUMED Medical Hold and Holdover Status as of 25 June 2009.

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or. Privately Rented Housing **	Number of Personnel Housed
Number of personnel	0/658	526/658	0/658	42/658	42/658	48/658	658

X = MH and Holdover Rooms/Housing Units
Y = Total number of MH and Holdover
** = **Standards do not apply to private homes**

3. Facilities Used to House Personnel:

Military Medical Treatment Facility (MTF) - A facility established for the purpose of furnishing medical and/or dental care to eligible individuals. This does not include battalion aid stations, post/base in or out processing facilities, or soldier readiness processing (SRP) facilities unless they are an integral part of the MTF.

DoD Owned Military Family Housing - Housing owned by the U.S. Navy for occupancy by eligible members with dependents and funded with Family Housing, Navy and Marine Corps (FH, N&MC) dollars.

DoD Owned Unaccompanied Personnel Housing - Housing owned by the U.S. Navy for occupancy by permanent party single military personnel and funded with O&M, N.

Leased or contracted Housing or Lodging on the community - Leased housing is private sector housing leased by the Navy for occupancy by families, unaccompanied personnel, or transient personnel.

DoD/NAF owned Lodging (including Fisher Houses) - DoD/NAF owned Lodging is transient housing with management by non-appropriated fund personnel to provide housing support for transient personnel whether on temporary duty or travel orders, or personnel and dependents on permanent change of station orders.

Housing Assignment - Personnel are assigned on a first come first served basis upon receipt of an application or official request of housing using waiting list procedures that ensure equitable access to housing for all families, bachelors, and transients. Personnel with medical conditions will be assigned to housing that is appropriate for their unique conditions.

Privatized Family Housing or Lodging – Housing obtained through implementation of military housing privatization authorities (10 USC 2871 et seq). Housing is owned and operated by a private entity and rented to eligible military personnel on a preferential basis. Personnel are referred (vice assigned) to the housing and lease directly from the private entity.

Support for Personnel in Non-Governmental Housing – The Patient Administrative Department at each activity is used as the medium to obtain medical support for a member residing at home by communicating or linking to Case Management or other appropriate offices within the hospital and also for answering general questions.

Administratively, if the member is undergoing an MEB or PEB, the Patient Administrative Department communicates with the member as often as necessary to ensure proper and efficient submission of any MEB or PEB.

4. Military Quarters Housing Medical Hold and Holdover Personnel:

Summary of Past Inspections:

The material condition of housing quarters maintained by CNIC, CMC and BUMED are monitored and reported using a centrally managed continuous inspection process described in NAVFAC MO-322, Inspection of Shore Facilities. In general, Sustainment Restoration and Modernization (SRM) requirements identified during the inspection process are documented in a web accessible database. The Navy and Marine Corps are moving from an installation implemented inspection system to centrally funding inspections by professional engineering teams. Inspections will be completed for all class II type 2 real property assets on a specified schedule based on type and significance of facility using a single service wide set of evaluation criteria that are consistent with all applicable codes and standards.

Facility asset condition is evaluated using the industry standard metric Facility Condition Index (FCI) which is calculated as total unfunded SRM requirement divided by asset Plant Replacement Value (PRV). The calculated FCI is consistent with the Quality factor Q as defined by OSD and is the reporting metric common to all service branches.

Additionally, to specifically support the inspection process for the Wounded Warrior and Medical Hold/Holdover facilities, a detailed check-list was created using the DEPSECDEF Housing Standards and is used by the inspection team to perform the semi-annual Regional Medical Inspector General inspections and the annual Wounded Warrior/Medical Hold/Holdover housing facilities inspection conducted by the Navy and the Marine Corps.

At the activity level, housing and facility management personnel conduct inspections as required (daily, weekly, monthly, quarterly, etc). Navy housing staffs perform regular and recurring inspections to ensure that standards are maintained for a quality living environment in permanent party and transient housing facilities. Inspectors ensure that resident living areas are kept clean and that all amenities such as furnishings, linen and appliances are adequate and in good condition. Housing inspectors report maintenance, repair, and safety items to facility maintenance personnel for correction and schedule work to minimize disruption to residents. Facility Managers participate in facility inspections, fire and safety inspections and review deficiencies identified by maintenance personnel (government or contractor) while performing preventative maintenance inspections (PMIs).

BUMED, CMC and CNIC have the authority at the local level to correct known requirements or deficiencies up to a certain threshold. BUMED, CMC and CNIC have documented process for submission of special projects over this threshold.

Current Inspection Protocol/Process:

The housing standards for this inspection were developed by a LOA 5 sub working group staffed with representatives from OSD H&CS, Air Force, Army, Navy, and Marine Corps. The inspection checklist contains questions separated into three categories outlined in the housing standards: Assignment, Baseline and Special Medical.

Due to the inspection being based on the medical condition of the military service member, BUMED took the lead on the military quarters housing medical hold and holdover personnel inspections, and were requested to coordinate with BUMED facility managers, when BUMED was the facility owner or to coordinate with CNIC and CMC when they were the facility owners, respectively. All final inspections were submitted through BUMED. Teams typically included medical case managers, housing managers, facility managers, engineers of various disciplines, engineering technicians and tradesmen of various backgrounds. The teams were advised to perform a visual inspection of each housing facility after reviewing requirements generated in VFA, recurring service calls identified in DMLSS or MAXIMO and regularly scheduled PMIs.

Activity responses were varied. Most activities indicated that their medical hold space met the standard, and as a result, no actions or estimates were required. Other activities indicated that their housing met the standard, but recognized that deficiencies existed in the facility and provided estimates accordingly. In all cases when a facility did not meet the standard, renovations were underway to correct the deficiency. The results are reported in the three categories of "Assignment", "Baseline" and "Special Medical" and are included below:

Findings:

National Naval Medical Center (NNMC) Bethesda, MD

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Mercy Hall, Bldg 50	65/0	$0	65/0	$0	65/0	$0

National Naval Medical Center (NNMC) Bethesda, MD (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/68	65/68	0/68	0/68	0/68	3/68	68

Comments: NNMC Bethesda completed Mercy Hall renovations with associated site enhancements to correct Americans with Disability Act (ADA) and Uniform Federal Accessibility Standards (UFAS) deficiencies in December 2007. ADA/UFAS compliance included providing accessible public and occupant room toilets, drinking fountains, new exterior and interior doors, and corridors. A new elevator serving all floors is operational.

NNMC Bethesda constructed an ADA compliant ramp providing direct access to Mercy Hall from the Naval Exchange area.

Additionally, NNMC Bethesda awarded a FY09 BUMED Special Project to modernize the Heating and Air Conditioning System allowing individual unit temperature control. Construction started in June 2009 with an expected completion date of March 2010.

NH Bremerton/Naval Station Bremerton

		Assignment		Baseline		Special	Medical
		M/NM	**Action/Cost to meet Standard**	M/NM	**Action/ Cost to meet Standard**	M/NM	**Action/ Cost to meet Standard**
1	1 Boone Rd	1/0	$0	1/0	$	1/0	$0
2	2306D Scorpion Ave	1/0	$0	1/0	$0	1/0	$0

NH Bremerton/Naval Station Bremerton (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing	Number of Personnel Housed
Number of personnel	0/2	2/2	0/2	0/2	0/2	0/2	2

Comments: None.

NH Camp Pendleton, CA/MCB Camp Pendleton

		Assignment		Baseline		Special Medical	
		M/NM	Action/Cost to meet Standard	M/NM	Action/ Cost to meet Standard	M/NM	Action/ Cost to meet Standard
*1	Bldg H-49	22/0	$0	22/0	$0	22/0	$0
2	H-96	9/0	$0	9/0	$0	9/0	$0
3	13109	1/0	$0	1/0	$0	1/0	$0
4	635 Psuan	1/0	$0	1/0	$0	1/0	$0
5	336 Taegu Dr	1/0	$0	1/0	$0	1/0	$0
6	322 Suzuki Dr	1/0	$0	1/0	$0	1/0	$0
7	335 Ellison Ct	1/0	$0	1/0	$0	1/0	$0
8	126 Hamilton	1/0	$0	1/0	$0	1/0	$0
9	330-C Davis Ct	1/0	$0	1/0	$0	1/0	$0
10	324 Edgar Ct	1/0	$0	1/0	$0	1/0	$0
11	314 Angeles St	1/0	$0	1/0	$0	1/0	$0
12	423 Hagaru Ct	1/0	$0	1/0	$0	1/0	$0
13	106 Quinn St	1/0	$0	1/0	$0	1/0	$0
14	539 Redwood St	1/0	$0	1/0	$0	1/0	$0
15	339 Boxwood St	1/0	$0	1/0	$0	1/0	$0
16	633 Rodriguez Ct	1/0	$0	1/0	$0	1/0	$0
17	380B Walker Wy	1/0	$0	1/0	$0	1/0	$0

NH Camp Pendleton, CA/MCB Camp Pendleton (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing	Number of Personnel Housed
Number of personnel	0/46	32/46	0/46	0/46	14/46	0/46	46

Comments: The Marine Corps recognizes the need to provide the best care available to its ill, injured, and or wounded service members and is constructing a Wounded Warrior Barracks at Camp Pendleton containing 100 rooms compliant with the Americans with Disabilities Act (ADA) guidelines and the new DoD Medical Hold/Holdover Housing Inspection Standards.

The MILCON project was included in the FY08 Presidential Budget submission with anticipated building occupancy date in April/May 2010. The total cost for the project is estimated at $25.9M.

Upon completion of this MILCON project, H49 will be transitioned to the new facility.

The previous report identified cosmetic improvements for H-49. All improvements have been completed as of February 2009.

Naval Medical Center (NMC) San Diego, CA/Naval Base San Diego

		Assignment		Baseline		Special	Medical
		M/NM	Action/Cost to meet Standard	M/NM	Action/ Cost to meet Standard	M/NM	Action/ Cost to meet Standard
1	NMCSD - Bldg 26	100/0	$0	100/0	$0	100/0	$0
2	NAVSTA BLDG 3150 Vesta Hall	17/0	$0	17/0	$0	17/0	$0
3	NAVSTA BLDG 3362 Donnelly Hall	9/0	$0	9/0	$0	9/0	$0
4	NAVSTA BLDG 3203 Copp Hall	7/0	$0	7/0	$0	7/0	$0

Naval Medical Center (NMC) San Diego, CA/Naval Base San Diego (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel

	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing	Number of Personnel Housed
Number of personnel	0/133	133/133	0/133	0/133	0/133	0/133	133

Comments: None

NHC Hawaii/MCB Hawaii/Naval Station Pearl Harbor

	Assignment		Baseline		Special Medical	
	M/NM	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
BEQ 7046	16/0	$0	16/0	$0	16/0	$0
2708A Cushman (Hana Lake)	1/0	$0	1/0	$0	1/0	$0
6390A Nueku St (Hawaii Loa)	1/0	$0	1/0	$0	1/0	$0
7381 Birch Cir (Manana)	1/0	$0	1/0	$0	1/0	$0
2677B Daly Rd (Ulupau)	1/0	$0	1/0	$0	1/0	$0
2678B Kapalu Pl (Pa Honua)	1/0	$0	1/0	$0	1/0	$0

NHC Hawaii/MCB Hawaii/Naval Station Pearl Harbor (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/21	16/21	0/21	0/21	5/21	0/21	21

Comments: BEQ 7046 is a relatively new barracks with 20 rooms on the ground floor assigned to the Wounded Warrior Battalion West, Hawaii Detachment. Three rooms were renovated to be wheelchair

accessible and are used to house one person per room. The remaining 17 rooms are in a 2x0 configuration with the capacity of housing two personnel in one room. This facility is in excellent condition and adequately supports the Wounded Warriors' Special Medical Requirements. No recommended improvements have been identified for this facility. A contract is being pursued for FY10 for grounds maintenance. Currently the barracks is shared with 3rd Marine Regiment and the grounds are maintained by the tenants of the facility.

All on base housing units occupied by Wounded Warriors were found to be in compliance with the DoD Medical Hold/Holdover Housing Inspection Standards and supported the individual Wounded Warrior's Special Medical Requirements and duration of treatment. Discrepancies such as screen door repair, plumbing, painting, and extermination were addressed with Forest City, PPV housing management for correction. In summary, all facilities inspected were maintained in accordance with DoD standards and met the special needs of the residents.

NH Camp Lejeune/Marine Corps Base (MCB) Camp Lejeune

		Assignment		**Baseline**		**Special Medical**	
Facility		**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/Cost to meet Standard**
1	H-14 (Wounded Warriors Battalion)	30/0	$0	30/0	$0	30/0	$0
2	FC 478 (French Creek)	21/0	$0	21/0	$0	21/0	$0
3	BEQ 1042 Brig (RSU and DSG)	18/0	$0	18/0	$0	18/0	$0
4	BEQ French Creek 478 RSU	2/0	$0	2/0	$0	2/0	$0
5	6424 Montana St	1/0	$0	1/0	$0	1/0	$0
6	5829 Louisiana St	1/0	$0	1/0	$0	1/0	$0
7	5705 Virginia St	1/0	$0	1/0	$0	1/0	$0
8	5321 Michigan Ave	1/0	$0	1/0	$0	1/0	$0
9	4196 Stranz Ct	1/0	$0	1/0	$0	1/0	$0
10	974 East Peleliu Dr	1/0	$0	1/0	$0	1/0	$0
11	4096 Barker Ct	1/0	$0	1/0	$0	1/0	$0
12	4073 Matanikau	1/0	$0	1/0	$0	1/0	$0
13	5086 Wood Ct	1/0	$0	1/0	$0	1/0	$0
14	5099	1/0	$0	1/0	$0	1/0	$0

	LeCaptain Ct						
15	5102 LeCaptain Ct	1/0	$0	1/0	$0	1/0	$0
16	5157 Simpson Ct	1/0	$0	1/0	$0	1/0	$0
17	5198 West Peleliu	1/0	$0	1/0	$0	1/0	$0
18	5354 Hoffman Ct.	1/0	$0	1/0	$0	1/0	$0
19	2648 Bougainville	1/0	$0	1/0	$0	1/0	$0
20	5683 Tarawa Blvd.	1/0	$0	1/0	$0	1/0	$0
21	5921 Hagaru Dr.	1/0	$0	1/0	$0	1/0	$0
22	6189 Chosin Cir	1/0	$0	1/0	$0	1/0	$0
23	6084 Bernak St	1/0	$0	1/0	$0	1/0	$0

NH Camp Lejeune/Marine Corps Base (MCB) Camp Lejeune (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/90	71/90	0/90	0/90	19/90	0/90	90

Comments: There were no major findings and only a few minor findings during the inspection. The minor findings were as follows: sink faucet dripping, malfunctioning of a front door lock, pest control treatment needed, and condensation around an A/C vent, loose towel bar as well as peeling paint. These minor findings have been forwarded to the appropriate parties for correction (work orders).

Reserve Support Unit (RSU) BEQ 1042 has been submitted as an M-2 Major Repair Project in FY 2010 which will correct washer and dryer ratio deficiency as per UFC Navy and Marine Corps Bachelor Housing Standards.

Charter Cable is in the process of correcting all cable drop discrepancies and is scheduled to be completed by 30 September 2009.

NHC Great Lakes, IL/NA VSTA Great Lakes, IL

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	Admiral Boorda Hall, Bldg 30&34	75/0	$ 0	75/0	$ 0	75/0	$ 0
2	Ship 5, Bldg 7102	99/0	$ 0	99/0	$ 0	99/0	$ 0

NHC Great Lakes, IL/NA VSTA Great Lakes, IL (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/174	174/174	0/174	0/174	0/174	0/174	174

Comments: Previously, Medical Hold recruits were housed in Building 7121 (Ship 17). They were relocated to building 7102 (Ship 5) in order to be closer to Building 1007, Tranquility Branch Health Clinic, for convenience to the patients being seen for follow-up appointments. Overall, the barracks housing medical hold and holdover personnel are adequate.

NAVSTA Great Lakes will continue to house any Sailor in a medical hold status at Admiral Boorda Hall. NAVSTA Great Lakes completed its project to upgrade the HVAC system (so occupants may individually control their room temperature) on 24 July 2009.

NH Jacksonville, FL/NAS Jacksonville, FL/NAVSTA Mayport, FL

		Assignment		Baseline		Special Medical	
	Facility	**M/NM**	**Action/Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**	**M/NM**	**Action/ Cost to meet Standard**
1	BEQ 822 (NAS)	3/0	$0	3/0	$0	3/0	$0
2	829B Enterprise (NAVSTA)	1/0	$0	1/0	$0	1/0	$0
3	809A Edison (NAVSTA)	1/0	$0	1/0	$0	1/0	$0

NH Jacksonville, FL/NAS Jacksonville, FL/NAS Mayport, FL (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing	Number of Personnel Housed
Number of personnel	0/50	3/50 (NAS)	0/50	0/50	2/50 (NAVSTA)	45/50	50

Comments: None.

NH Pensacola, FL/NAS Pensacola, FL

		Assignment		Baseline		Special	Medical
	Facility	M/NM	Action/Cost to meet Standard	M/NM	Action/ Cost to meet Standard	M/NM	Action/ Cost to meet Standard
1	Bldg 3251 (NAS)	13/0	$ 0	13/0	$ 0	13/0	$ 0

NH Pensacola, FL/NAS Pensacola, FL (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	DoD Owned Unaccompanied Personnel Housing	Leased or Contracted Housing or Lodging on the Community	DoD/NAF Owned Lodging (includes Fisher Houses)	Privatized Family Housing or Lodging	Privately Owned or Privately Rented Housing	Number of Personnel Housed
Number of personnel	0/13	13/13	0/13	0/13	0/13	0/13	13

Comments: None.

NMC Portsmouth, VA/Naval Station Norfolk/Norfolk Naval Shipyard – Scott Annex/Naval Amphibious Base Little Creek, Norfolk, VA

		Assignment		Baseline		Special Medical	
Facility		M/NM	Action/Cost to meet Standard	M/NM	Action/ Cost to meet Standard	M/NM	Action/ Cost to meet Standard

1	NMC Portsmouth, Bldg 288	13/0	$ 0	13/0	$0	13/0	$ 0
2	NMC Portsmouth,	4/0	$0	4/0	$0	4/0	$0
3	NAVSTA Norfolk S30	26/0	$ 0	26/0	$ 0	26/0	$ 0
4	NAVSTA Norfolk R63	1/0	$ 0	1/0	$ 0	1/0	$ 0
5	NAVSTA Norfolk A51	5/0	$ 0	5/0	$0	5/0	$ 0
6	NAVSTA Norfolk A52	5/0	$ 0	5/0	$0	5/0	$ 0
7	NAVSTA Norfolk	1/0	$ 0	1/0	$ 0	1/0	$ 0
8	NAVSTA Norfolk	1/0	$0	1/0	$0	1/0	$0
9	NAVSTA Norfolk	2/0	$0	2/0	$0	2/0	$0
10	NAVSTA Norfolk	1/0	$0	1/0	$0	1/0	$0
11	3608 Ocean view Ave Apt 2	1/0	$0	1/0	$0	1/0	$0
12	Lake Wright Quality Suites, Room 571	1/0	$0	1/0	$0	1/0	$0

NMC Portsmouth, VA/Naval Station Norfolk/Norfolk Naval Shipyard – Scott Annex /Naval Amphibious Base Little Creek, Norfolk, VA (cont.)

	Military Quarters Housing Medical Hold Personnel and Military Quarters Housing Medical Holdover Personnel						
	DoD Owned Military Family Housing	**DoD Owned Unaccompanied Personnel Housing**	**Leased or Contracted Housing or Lodging on the Community**	**DoD/NAF Owned Lodging (includes Fisher Houses)**	**Privatized Family Housing or Lodging**	**Privately Owned or Privately Rented Housing**	**Number of Personnel Housed**
Number of personnel	0/61	17/61	0/61	42/61	2/60	0/61	61

Comments: No material findings were identified. Minor discrepancies were recorded and discussed with responsible housing and facilities staff and the results were forwarded to the Director for Administration (oversees the maintenance and habitability of the medical hold and holdover barracks – NMC Portsmouth: Bldg 282 and Bldg 2, 5th Floor). Minor findings related to stains on floor tiles and overall floor dinginess as well as standing water underneath

two washing machines in the common laundry room. Trouble ticket was submitted to determine if the machines were the problem and will continually be monitored until resolution is completed.

As a result of identified communication weaknesses, Fleet Liaison and Case Management are jointly establishing a process improvement plan to prevent lapses in communication in order to ensure that patient's and their families receive consistent effective and efficient care.

A "Patriot's Inn" housing wing, accommodating 13 medical hold and holdover personnel, is expected to be operational by November 2009 (NMC Portsmouth, Bldg 3, 7th Floor). This facility will broaden the care of wounded warriors, medical hold and holdover personnel that can be discharged from inpatient care but whose medical treatment would be negatively impacted if the member was housed outside the facility. The rooms are generously configured and meet all American Disability Act (ADA) requirements.

Windows in both Bldg A51 (5 units) and Bldg A52 (5 units) did not meet DOD Housing standards because of malfunctioning windows. The windows were confirmed repaired on 11 Aug 2009.

None of the rooms at Naval Station Norfolk have fire suppression systems as a result of being constructed before the code was established; however, all have fire detection systems.

There were two medical holdover personnel assigned to Bldg A-128. This building met standards but had the following minor discrepancies:

- Repairs are needed to resolve the root cause of water damage in bathrooms. Heat lights, rather than exhaust fans, were installed in the 2 bathrooms inspected which contributed to the rust on the chrome and a small section of peeling/cracking paint. The rusted chrome and peeling paint was repaired by the local staff for one room, the other room could not be repaired because the occupant prefers it be left alone until his surgery is completed (requests not to be moved because the unit adequately accommodates his condition).

- The Public Works Officer stated a special project to rehabilitate the building was prepared in Apr 2009 to address continuing issues with the building. The estimated cost for the rehab is $20Million, which remains unfunded at this time. The project (RM22-92) was submitted this year for the FY12 Special Projects program and is currently un-programmed.

Modifications to existing facilities were requested via DD Form 1391s, however, funding has not been granted at this time. Additional housing for shore-based sailors are continuing construction, but will minimally impact Medical Hold/Holdover quarters availability. There are no plans to construct additional Wounded Warrior/Medical Hold/Holdover quarters. The regional NAVFAC Public Works Office (PWO) oversees the habitability of all medical hold/holdover quarters and has identified needed rehabilitation and upgrades; however, they state that funding levels are severely limited and other installation priorities delay completion of critical upgrades or reconstruction to Bldg A-128 (result of the increasing age of the building; minimal maintenance performed). NAVFAC PWO and CNI have for action.

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

OCT 1 2009

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the directed report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter has been sent to Chairmen Edwards, Obey, and Inouye.

Sincerely,

Roger M. Natsuhara
Acting

Enclosure:
As stated

cc:
The Honorable Kay Bailey-Hutchison
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Affairs, and Related Agencies
Committee on Appropriations
U. S. House of Representatives
Washington, DC 20515-6018

OCT 7 2009

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the directed report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter has been sent to Chairmen Johnson, Inouye, and Obey.

Sincerely,

Roger M. Natsuhara
Acting

Enclosure:
As stated

cc:
The Honorable Zach Wamp
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

OCT 1 2009

The Honorable Dan Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the directed report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter has been sent to Chairmen Johnson, Edwards, and Obey.

Sincerely,

Roger M. Natsuhara
Acting

Enclosure:
As stated

cc:
The Honorable Thad Cochran
Ranking Member

DEPARTMENT OF THE NAVY
THE ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON, D.C. 20350-1000

OCT 1 2009

The Honorable David R. Obey
Chairman, Committee on Appropriations
U. S. House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

In accordance with House Report 110-775 accompanying the Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009, the directed report on projected base population increases for those Marine Corps installations that will add at least 1,000 permanent party military personnel (compared to the 2003 baseline) under BRAC, global restationing, and Growing the Force is provided at the enclosure.

A similar letter has been sent to Chairmen Johnson, Edwards, and Inouye.

Sincerely,

Roger M. Natsuhara
Acting

Enclosure:
As stated

cc:
The Honorable Jerry Lewis
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 21 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the seventh quarterly report. The OA plan was outlined in the August 2008 Report to Congress. This report provides specific progress details and accomplishments for the reporting period. It is the Navy's intention to provide a detailed update to the overarching OA plan (annual report) in November 2009, with quarterly updates to that report, which will detail progress to our plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 21 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the seventh quarterly report. The OA plan was outlined in the August 2008 Report to Congress. This report provides specific progress details and accomplishments for the reporting period. It is the Navy's intention to provide a detailed update to the overarching OA plan (annual report) in November 2009, with quarterly updates to that report, which will detail progress to our plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 21 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the seventh quarterly report. The OA plan was outlined in the August 2008 Report to Congress. This report provides specific progress details and accomplishments for the reporting period. It is the Navy's intention to provide a detailed update to the overarching OA plan (annual report) in November 2009, with quarterly updates to that report, which will detail progress to our plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SEP 21 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Enclosed is the seventh quarterly report. The OA plan was outlined in the August 2008 Report to Congress. This report provides specific progress details and accomplishments for the reporting period. It is the Navy's intention to provide a detailed update to the overarching OA plan (annual report) in November 2009, with quarterly updates to that report, which will detail progress to our plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

SEVENTH QUARTERLY

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems (PEO IWS)
Washington, DC 20376

August 2009

I. Navy Open Architecture

As directed in the report of the Senate Armed Services Committee on the National Defense Authorization Act for Fiscal Year 2008 (Report No. 110-77), the Navy submits this Seventh Quarterly Report to Congress on Naval Open Architecture (NOA). NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. These practices are intended to significantly increase opportunities for innovation and competition, enable reuse of components, facilitate rapid technology insertions, and reduce maintenance leading to an increase in the capabilities of naval systems.

The scope of the Seventh report includes noteworthy NOA accomplishments of the Open Architecture Enterprise Team (OAET) individual Domains[1] and OA program plan for the Surface Domain and Aegis Combat System from April through June 2009. The progress of the OAET and individual Domains is framed in accordance with the five principles of NOA laid out in the Chief of Naval Operations staff's NOA Policy Memorandum of December 23, 2005. These principles are:

1. Encourage competition and collaboration through the development of alternative solutions and sources;

2. Build modular designs and disclose data to permit evolutionary designs, technology insertion, competitive innovation, and alternative competitive approaches from multiple qualified sources;

3. Build interoperable joint warfighting applications and ensure secure information exchange using common services, common warfighting applications, and information assurance as intrinsic design elements;

4. Identify or develop reusable application software selected through open competition of 'best of breed' candidates, reviewed by subject matter expert peers, and based on data-driven analysis and experimentation to meet operational requirements; and,

5. Ensure life cycle affordability including system design, development, delivery, and support while mitigating Commercial-Off-the-Shelf (COTS) obsolescence by exploiting the Rapid Capability Insertion Process / Advanced Processor Build methodology.

Principle 1 – Encourage Competition and Collaboration

To foster new competition, PEO Space Systems (SS) expanded the use of Small Business Innovative Research opportunities, resulting in four new research topics for small business.

---

[1] Domains are the warfare specialties and communities of interest (COI) within the Navy and Marine Corps. The Domains comprising the OAET are Surface, Submarines, Air, C4I, Space Systems, Marine Corps, Anti-Submarine COI, and the Mine Warfare COI. The Surface Domain is further broken down into Ships, Carriers, Littoral and Mine Warfare, and Integrated Warfare System Domains.

As part of the Command, Control, Communications, Computers, and Intelligence (C4I) Domain's Strategic Plan, an OA review process to provide Early Adopter programs a venue to identify program requirements and align program baselines to the Consolidated Afloat Network Enterprise Services (CANES) and Integrated Ships Network System (ISNS) is being implemented.

Additionally, the CANES Common Computing Environment (CCE) Request for Proposal (RFP), released in June, included data rights provisions and award fee incentives derived from the *Naval Open Architecture Contract Guidebook for Program Managers*. The related H-18 Clause addresses the identification and assertion of restrictions on technical data and computer software such that either Unlimited or Government Purpose Rights be asserted on Software Product Specification Contract Data Requirements Lists. Award fees are heavily weighted towards the end of the performance period in order to shift risk to the contractor and incentivize the contractor to perform at a high level throughout the period of performance.

PEO Submarines completed a second study on future middleware technologies and standards for the evolution of the Submarine Warfare Federated Tactical System. This effort looked at how PEO Submarines needs to evolve its architecture to accommodate current and upcoming technologies and future capabilities in the near term (5-10 years) and long term (10-20 years).

Naval Air Systems Command held an Industry Day on June 30, 2009, for the Technology Maturation phase of the Next Generation Jammer (NGJ) System, a pre-Milestone-A program. The participants were the industry companies who are interested in bidding on the proposal. Attendees received a brief by the government and also had an opportunity to submit written questions and receive verbal answers during the Industry Day. Steps were taken to ensure that all interested parties received the same information. PMA 234, the Airborne Electronic Attack and EA-6B Program Office within PEO Tactical Aircraft, released the draft Request for Proposal (RFP) on 19 August 2009. The RFP is a Full and Open Competitive Solicitation. Modular Open Systems Approach (MOSA) and NOA principles are key elements of the acquisition strategy.

The Marine Corps has drafted an instruction for recommended NOA implementation within contract language for all new, relevant Marine Corps and program documentation.

PEO Littoral and Mine Warfare (LMW) has two initiatives which involve the migration of the Mine Warfare (MIW) tactical decision aid, Mine Warfare and Environment Decision Library (MEDAL) and the MIW post mission analysis toolset to Service-Oriented Architectures. The program has been aggressively working to expand the number of organizations which will contribute new capabilities, ultimately leading to more competition. PMS 495, the Mine Warfare Program Office, in partnership with the Office of Naval Research, has established three technology agreements to transition modular software applications to both MEDAL and Net-Centric Analysis for MIW.

PEO LMW has also initiated the following OA efforts in other programs:

- Decoupling the edge device components in the Shipboard Protection System (SPS) modular design to allow individual contracts and competitions for each component.
- Defining major interfaces and opening architecture for competitive sourcing in the primary functional segments of the Systems of Systems.
- Developing and implementing the Joint Counter-Radio control improvised explosive device Electronic Warfare (JCREW) 3.3 OA and Open Business initiatives to provide technology innovators the ability to contribute to systems-level work being performed by prime vendors.

Principle 2 – Build Modular Designs and Disclose Data

On June 16, 2009, the RFP for the Explosive Ordnance Disposal (EOD) / JCREW program was released. PEO LMW's PMS 408, the CREW / EOD Program Office, combined information from several sources, including the *OA Contract Guidebook* and business models developed by other programs, to incorporate NOA principles and address NOA requirements in the RFP.

PEO SS placed 25 artifacts of the Mobile User Objective System (MUOS) Common Air Interface waveform in the Joint Tactical Radio Systems Information Repository for reuse by other programs. A new MUOS waveform web site widens the opportunity for industry to provide MUOS-capable terminals.

Principle 3 – Build Interoperable Joint Warfighting Applications

The E-2D Advanced Hawkeye is the first program to be certified by the Under Secretary of Defense for Acquisition, Technology, and Logistics under the new Weapon System Acquisition Reform Act. The Air Domain secured an Acquisition Decision Memorandum on June 11, 2009, approving the E-2D program's entry into Production and Deployment. E-2D interoperability includes the ability to share the same picture seen by the operators in the aircraft with other areas of the battlespace. While the E-2D successfully passed its Milestone-C decision, this review coincided with a review and recertification of the program under the Nunn-McCurdy certification process. A rigorous review showed that the critical breach was not due to NOA-driven design or programmatic changes and could be mitigated by programming the procurement of E-2D aircraft at a more efficient rate.

PEO Submarines received the 2009 Defense Enterprise Architecture Award for its use of enterprise architecture in transformation towards a net-centric enterprise. By developing an enterprise Information Management / Information Technology architecture for all five platform classes of submarines using NOA- and COTS-based systems, PEO Submarines was able to reduce the budgeted amount for electronics for Block III of the VIRGINIA Class submarines by $38 million per ship as part of the overall cost reduction program for those submarines.

Principle 4 – Identify or Develop Reusable Application Software

As part of PEO C4I's Early Adopter methodology, PMW-160 received Interim Authority to Test the ISNS CCE, which permits installation and testing. The PEO successfully completed the Early Adopter System Integration Test (SIT) up through the SIT 4 Readiness Review, completed the ISNS baseline load for SIT 4, and commenced baseline performance testing, which continues to track positively. This is a reusable environment in which multiple end-user applications are tested on a common set of hardware and utilize common core services. The hardware and software of the test environment are being reused by multiple applications.

The AN/SQQ-89A(V)15 project transferred submarine passive sonar software to surface ship sonar systems and began fielding in June aboard USS MASON (DDG 87). Submarine passive algorithms are tuned for surface ship Multi-Function Towed Array processing and reused in the SQQ-89A(V)15 Advanced Capability Build 09. This installation is the 22nd reuse of this software segment.

PEO IWS development of the first two reusable combat system components (System Track Manager and Track Server) continues with initial efforts to integrate the components into the Aegis Modernization program. In addition to developing reusable components, this program has been a pilot for establishing systems engineering and management processes that support development of core combat systems software by someone other than the prime contractor or an affiliated subcontractor.

The OAET made an on-line course on Software Reuse available to the Naval Acquisition Community and updated the Open Architecture Assessment Tool based on feedback from several program assessments.

Principle 5 – Ensure Life Cycle Affordability

The Undersea Warfare Decision Support System ensures life cycle affordability by utilizing the Rapid Capability Insertion Process / Advanced Processor Build methodology as a CANES Early Adopter. Installation of Build 2 began on USS CAPE ST. GEORGE in June. Improved Performance Sonar (IPS) and Scaled IPS, not supportable as stand-alone systems, were integrated into the AN/SQQ-89A(V)15 system.

PEO LMW's Mine Counter-Measures (MCM) modernization delivered its first modernized and fully open architected combat system on USS SENTRY (MCM 3).

PEO LMW performed the following with SPS software applications:

- Migrated from a contractor-based intellectual property solution to a Government purpose rights solution;
- Reduced the number of operating systems required to one common operating system; and
- Eliminated proprietary communication protocols in favor of standardized OA protocols.

Miscellaneous NOA Activities

A total of 80 Navy and industry personnel took the online training courses on NOA or Software Reuse. PEO C4I has furthered its OA training efforts by teaming with SPAWAR Headquarters to include an OA block of study in the Assistant Program Manager Course while continuing to host the PEO C4I OA Case Study class; C4I has trained an additional 26 acquisition professionals during this reporting period.

During NOA Technical Interchange Meetings and Technical Coordination meetings, the Air Domain:

- Trained 23 contractor and 13 government personnel on how to integrate the NOA and MOSA principles into two business areas and four technical areas so that a business strategy can be developed before applying the technical principles and attribute of OA to a program;
- Discussed using Key Open Sub-Systems as a process to designate key interfaces (which is the third MOSA principle) for NGJ and Joint Precision and Landing System (JPALS) programs;
- Presented a recommended format for the Open Systems Management Plan Contract Deliverable Requirements List for the NGJ and JPALS programs.
- Recommended an OA presentation format for the System Functional Review of the Broad Area Maritime Surveillance Unmanned Aircraft System program.

The following Software Hardware Asset Reuse Enterprise (SHARE) repository and Surface Domain asset / artifact re-use activity occurred during the period from April 1 through June 30, 2009:

- Processed 34 new registration applications (Government/Industry) – there have been a total of 344 government/industry registrants; currently there are 298 users.
- Received requests for two assets during this quarter. There have been a total of 301 assets requested; 161 have been fulfilled and 29 are outstanding.
- A total of 77 assets (66,444 artifacts) are available in SHARE.

The following Net-centric Enterprise Solutions for Interoperability (NESI) Collaboration Site activity occurred during the same time period:

- Processed 78 new registration applications – there are currently 1,637 active users.
- Posted 30 new assets and 937 new artifacts.
- A total of 285 assets (8,401 artifacts) are available in the NESI Collaboration Site.

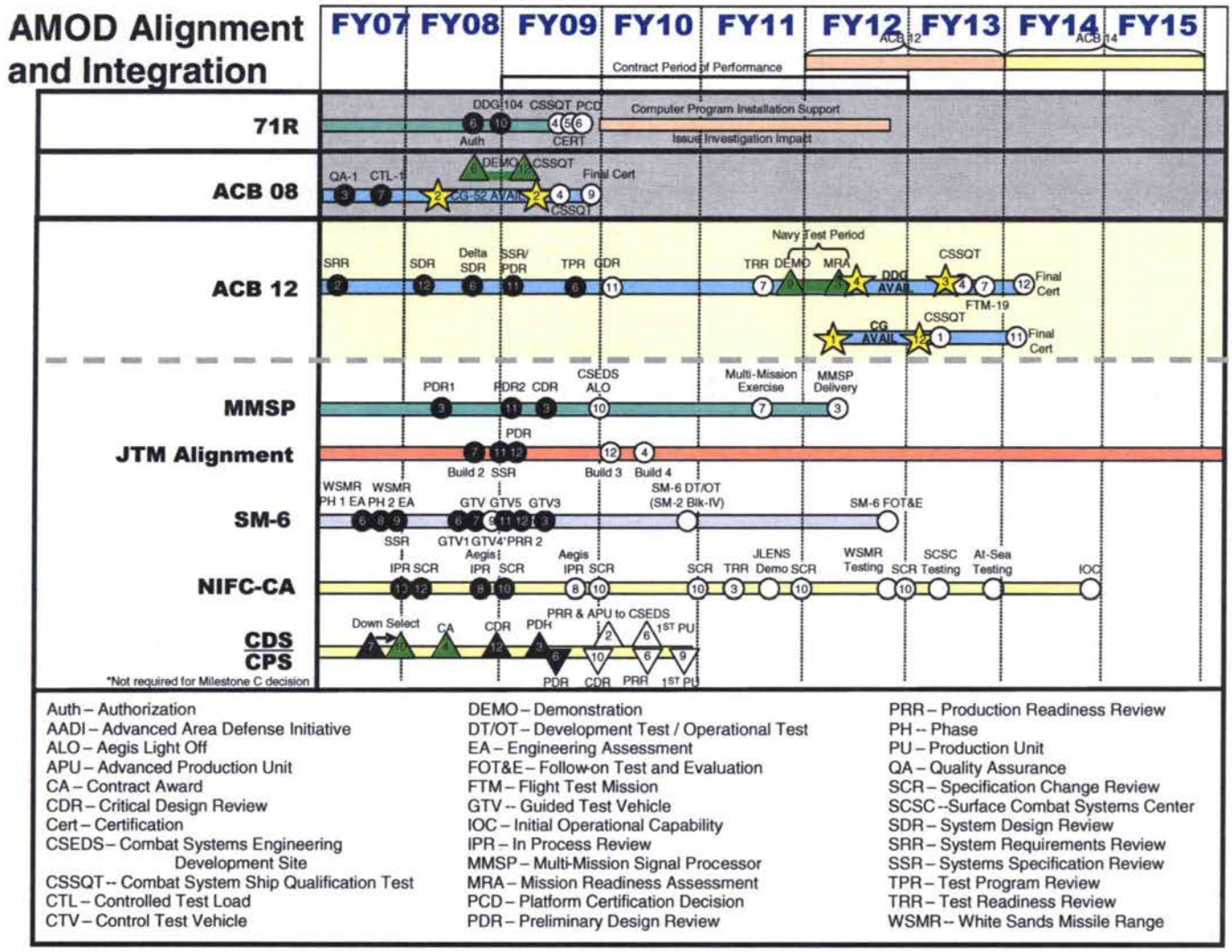
PEOs C4I and IWS have extended the previously reported OA federated search capability between SHARE and NESI to include discoverability of projects hosted within the Defense Information Systems Agency (DISA)-sponsored Forge.mil software repository. The federated search capability allows users in both the NESI Collaboration Site and the SHARE repository to effectively discover software-related assets being developed by each PEO and those within DISA's domain. Search results are returned in a standardized manner.

Progress against the OA program plan for the Surface Domain and Aegis Combat System

The OA program plan for the Surface Domain and Aegis Combat System was provided in the Third Report to Congress dated August 2008. Progress to the plan is reflected in Figure 1 (originally included in the Third Report) and as follows:

- Advanced Capability Build (ACB) 08/Technology Insertion (TI) 08 was successfully demonstrated on USS NIMITZ (CVN 68, Ship Self-Defense System or SSDS), with completion of the SSDS Software Certification on June 12, 2009, and USS BUNKER HILL (CG 52, Aegis), with completion of the Combat System Ship Qualification Test (CSSQT) on July 30, 2009. Software Certification for USS BUNKER HILL is on schedule for September 2009.
- ACB 12 Successful Test Program Review (TPR) was completed on schedule, June 15-16, 2009. PEO IWS granted approval to commence Levels 3-5 test efforts (i.e., Equipment Unit Test, Software Integration Test, Element Verification, Weapon System and Subsystem Integration Test and Combat System Test). PEO IWS also granted approval to proceed with Computer Program development of Build 4 of the 11 software builds planned. Light off for the test site in New Jersey was completed on-schedule to support system testing.
- Multi-Mission Signal Processor (MMSP) Critical Design Review (CDR) was completed in March 2009 as scheduled.
- Single Integrated Air Picture (SIAP) Program is being re-planned. Development of the first two reusable combat system components (System Track Manager and Track Server) is continuing, with a successful integration of the first increment of functionality into the Aegis Modernization program.
- Standard Missile (SM) 6 is on scheduled for integration into Baseline (BL) 3/4 Cruisers and BL 5 Destroyers for ACB 12. Milestone C review was conducted on July 29, 2009.
- The Naval Integrated Fire Control - Counter Air (NIFC-CA) capability will enable Aegis ACB 12 platforms to engage targets over the horizon using non-SPY sensors. In June 2009, the NIFC-CA project received additional funding to execute a Family of Systems land-based test program as risk reduction for fleet deployment in Fiscal Year 2014.
- Common Display System (CDS): Phase II CDR was held in December 2008 with a closeout meeting held in February 2009. Hardware Test Readiness Review (TRR) was conducted on April 16, 2009.
- Common Processing System (CPS): Contract competitively awarded in March 2009.
  - Preliminary Design Review (PDR) successfully completed on June 19, 2009 (this is a schedule change from the Third Report to Congress).
  - CDR is scheduled for October 2009 (this is a schedule change from the Third Report to Congress).
- During this quarter, the System Integrator/Design Agent (SIDA) has begun delivering short-cycle software increments and providing local on-site integration support at the Aegis Program Systems Engineering Agent's facility. The integration of incremental software builds will allow enterprise common components to support full Joint Track Management. The alignment of Joint Track Management functionality will support ACB-12 development and fielding across platforms.

- The draft Architecture Description Document was released for a final Navy and industry review and comment period. Comments received from over 100 different organizations are being reviewed for incorporation into the final version.
- Newly awarded combat system Platform Systems Engineering Agent contracts for Aegis Modernization and SSDS within PEO IWS include language requiring any products included in the combat system with restricted rights to be negotiated with the Navy in advance and to be clearly separated from the rest of the combat system technical data.



Auth – Authorization
AADI – Advanced Area Defense Initiative
ALO – Aegis Light Off
APU – Advanced Production Unit
CA – Contract Award
CDR – Critical Design Review
Cert – Certification
CSEDS – Combat Systems Engineering Development Site
CSSQT -- Combat System Ship Qualification Test
CTL – Controlled Test Load
CTV – Control Test Vehicle
DEMO – Demonstration
DT/OT – Development Test / Operational Test
EA – Engineering Assessment
FOT&E – Follow-on Test and Evaluation
FTM – Flight Test Mission
GTV -- Guided Test Vehicle
IOC – Initial Operational Capability
IPR – In Process Review
MMSP – Multi-Mission Signal Processor
MRA – Mission Readiness Assessment
PCD – Platform Certification Decision
PDR – Preliminary Design Review
PRR – Production Readiness Review
PH -- Phase
PU – Production Unit
QA – Quality Assurance
SCR – Specification Change Review
SCSC --Surface Combat Systems Center
SDR – System Design Review
SRR – System Requirements Review
SSR – Systems Specification Review
TPR – Test Program Review
TRR – Test Readiness Review
WSMR -- White Sands Missile Range

Figure 1

II. Summary

This Seventh NOA report to Congress includes noteworthy OA accomplishments and progress to the OA program plan for the Surface Domain and Aegis Combat System from April through June 2009. The Naval Enterprise continues to make progress in implementing NOA. Through the use of policies and other guidance, as well as business and programmatic changes, the Department of the Navy is establishing a culture that is capable of delivering warfighting improvements to existing systems more rapidly and efficiently. By shortening the development timeline, using full and open competition to leverage common capabilities, and focusing on Fleet-identified problems, the Navy and Marine Corps obtain more capable and effective ships, submarines, aircraft, satellites, Marine Corps units, and C4I capabilities.

The Navy intends to provide a detailed annual report in November 2009, including plans for 2010. Quarterly progress updates will be made to the November report during 2010.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Levin.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable John S. McCain
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Skelton, Levin, and Murtha.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JAN 8 2010

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Fiscal Year 2008 Senate Armed Services Committee (SASC) Report 110-77 directed the Secretary of the Navy "to submit a report to the congressional defense committees, commencing with the fiscal year 2009 budget request, to be updated quarterly, that outlines the Navy's plan and progress with implementing Open Architecture (OA)."

Attached is the Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress. This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress can be measured in subsequent quarterly reports. It also provides accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan.

Please let me know if I can be of further assistance. A copy of the Navy report is also being provided to Chairmen Levin, Inouye, and Murtha.

Sincerely,

Sean J. Stackley

Attachments:
As stated

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Member

EIGHTH QUARTERLY
and FIRST ANNUAL

REPORT TO CONGRESS

ON

NAVAL OPEN ARCHITECTURE (NOA)

Prepared by:

Open Architecture Enterprise Team
Program Executive Office, Integrated Warfare Systems (PEO IWS)
Washington, DC 20376

December 2009

I. Introduction – Naval Open Architecture

As directed in the report of the Senate Armed Services Committee on the National Defense Authorization Act for Fiscal Year 2008 (Report No. 110-77), the Navy submits this Eighth Quarterly and First Annual Report on Naval Open Architecture (NOA) to Congress.

NOA is the confluence of business and technical practices yielding modular, interoperable systems that adhere to open standards with published interfaces. These practices are intended to significantly increase opportunities for innovation and competition, enable reuse of components, facilitate rapid technology insertion, and reduce development schedules and maintenance costs, leading to improved naval system capabilities. These five principles are:

1. Encourage competition and collaboration through the development of alternative solutions and sources;

2. Build modular designs and disclose data to permit evolutionary designs, technology insertion, competitive innovation, and alternative competitive approaches from multiple qualified sources;

3. Build interoperable joint warfighting applications and ensure secure information exchange using common services, common warfighting applications, and information assurance as intrinsic design elements;

4. Identify or develop reusable application software selected through open competition of 'best of breed' candidates, reviewed by subject matter expert peers, and based on data-driven analysis and experimentation to meet operational requirements; and,

5. Ensure life cycle affordability including system design, development, delivery, and support while mitigating Commercial-Off-the-Shelf (COTS) obsolescence by exploiting the Rapid Capability Insertion Process / Advanced Processor Build methodology.

This Eighth report is intended to provide a baseline of NOA activities planned for Fiscal Year 2010 across the Navy and Marine Corps, against which progress will be measured in subsequent quarterly reports. This report also contains NOA accomplishments since the Seventh Report was submitted to Congress on September 21, 2009 and forwards the Surface Navy Combat Systems Development Strategy Acquisition Management Plan. Goals, objectives, and plans are presented by topic and then by individual responsible party within each topic.

The primary organizing topics of this report are:

1. Requirements, Expectations, Policy, and Guidance;
2. Increasing Competition;
3. NOA-Based Development and Testing;
4. NOA-Based Fielding; and
5. Cross-Program and Cross-Domain Linkages.

Responsible parties include the Domains[1], the Open Architecture Enterprise Team (OAET), PEO IWS 7B (as chair of the OAET), OPNAV Sponsor, and the Navy's Science and Technology agents such as the Office of Naval Research and Naval Research Laboratory.

The appendix to this report contains the Domain Roadmaps and depictions of planned activities for the near term. These roadmaps are visual representations of the information contained in this report.

The Surface Navy Combat Systems Development Strategy- Acquisition Management Plan (AMP) is the strategy for acquiring Surface ship combat management systems (CMS) and associated hardware and software that comprise both the Aegis combat system installed in Cruisers (CGs) and Destroyers (DDGs), and the Ship Self Defense System (SSDS) installed in aircraft carriers and amphibious ships.

II. Fiscal Year 2010 Plan

A. Requirements, Expectations, Policy, and Guidance

Specific Fiscal Year 2010 planned activities and objectives for achieving Open Architecture goals in the area of Requirements, Expectations, Policy, and Guidance are divided by responsibility and include:

1. Chief of Naval Operations Staff (OPNAV)

[1] Domains are the warfare specialties and communities of interest (COI) within the Navy and Marine Corps. The Domains comprising the Open Architecture Enterprise Team (OAET) are Surface, Submarines, Air, C4I, Space Systems, Marine Corps, Anti-Submarine COI, and the Mine Warfare COI. The Surface Domain is further broken down into Ships, Carriers, Littoral and Mine Warfare, and Integrated Warfare Systems. The Air Domain comprises Air Assault and Special Mission Aircraft, Tactical Aircraft, Unmanned Air Systems and Weapons, and Common Systems.

a. Publish an *Open Architecture Requirements Officer's Guidebook.* The guidebook will advise OPNAV staff on how to include NOA technical and business attributes in Joint Capabilities Integration and Development System (JCIDS) Capability Development Documents (CDDs), Capability Production Documents (CPDs), and other requirements documents.

2. Open Architecture Enterprise Team (OAET)
   a. Provide the Department of the Navy (DON) Chief Information Office (CIO) with rules that will incorporate NOA principles into the DON Enterprise Architecture in the second quarter of Fiscal Year 2010.
   b. Conclude OA and software development assessment of the DDG Machinery Control Systems Modernization program in second quarter of Fiscal Year 2010. This assessment will include recommendations to the Program Manager on how to better incorporate NOA principles going forward.
   c. Improve international interoperability by assessing candidate data models as part of the OA Working Group of the Maritime Theater Missile Defense (MTMD) forum.
   d. Publish a new *OA Contract Guidebook for Program Managers* in the second quarter of Fiscal Year 2010 containing updated language to help program managers conduct full and open competition and obtain appropriate data rights consistent with the Federal Acquisition Regulations.
   e. Transition the Software Hardware Asset Reuse Enterprise (SHARE) repository to SHARE II via a Phase 2 SBIR. SHARE II will capture SHARE's functional and federation capabilities, but also implement the ontological research of Naval Postgraduate School (NPS).

3. Aviation Domain (Appendix Slide 1)
   a. Implement the Aviation Domain OA business strategy that includes NOA and Modular Open Systems Approach (MOSA) principles in new Acquisition Category (ACAT) program strategies and plans. In particular, Next Generation Jammer (NGJ), Joint Allied Threat Awareness System (JATAS), US Army-led Common Infrared Countermeasure System (CIRCM) and P-8A Increment 2 have near-term, Fiscal Year 2010 and 2011 competition opportunities. The business checklist items within the *OA Contracts Guidebook for Program Managers* and the Key Open Sub-Systems (KOSS) process (used to identify key interfaces) will be emphasized, with technical OA attributes incorporated into best-practice systems engineering.
   b. Incorporate the Aviation Domain's KOSS evaluation tool into OPNAV's *Open Architecture Requirements Officer's Guidebook.* The KOSS tool is used to determine the best return on investment in applying OA attributes, allowing leadership to direct limited funds to areas with the greatest potential for return.
   c. Determine key internal and external interfaces for P-8A Increment 2, NGJ, JATAS, CIRCM, Joint Precision and Landing System (JPALS), and Broad Area

Maritime Surveillance (BAMS) Unmanned Aircraft System (UAS). The key interfaces will be delivered in the programs' Open Systems Management Plans (OSMP), stand-alone contract deliverables, or as annexes within their Systems Engineering Plans (SEP)

4. Surface Domain (Appendix Slide 2)
   a. For Aegis ACB 14 and SSDS ACB 12, leverage the Surface Navy Combat Systems Software Product Line Architecture Description Document (ADD), made available to SHARE in FY09, which describes the software architecture for Navy surface domain combat system product line. The ADD provides architectural guidance for the acquisition of common combat system software components intended for integration on two or more of the following platforms: Aegis Cruisers and Destroyers, aircraft carriers, amphibious ships, DDG 1000, LCS Flight 1, CG(X) and foreign military sales ship classes.
   b. Begin to architect the Air & Missile Defense Radar (AMDR). This architecture will be developed to tolerate total system growth, extensibility and scaling – particularly in aperture. This will permit a number of variants mountable to multiple ship classes. The architecture will be documented with modern Uniform Modeling Language (UML)-based tools. Software control components will comply with standard middleware and protocol. Standardization of combat system interfaces will be investigated to enable interoperability.
   c. Extend the guidance provided in the FY09 ACB/TI Instruction and Guidance documents through the development of execution level procedures. These process documents will support both ACB planning and execution efforts and will be living documents that will incorporate lessons learned as the ACB/TI approach evolves.
   d. In Fiscal Year 2010, the NAVSEA 05 Architectures, Interfaces and Modular Systems (AIMS) program will focus the Hull, Mechanical and Electrical (HM&E)-based modularity ship design processes on four activities:
      i) Leverage historical data and affordability objectives to determine targets for HM&E modularity. Historical data, coupled with a Business Case Analysis, show the potential effect that HM&E modularity may have on high-risk, high-change areas on ships;
      ii) Continue Flexible Infrastructure (FI) system development in support of NAVSEA 05 ship design efforts. FI is a system that enables quick installation and removal of physical systems and components by eliminating hot work (cutting and grinding of metal). The result is a reconfigurable space that allows for rapid technology insertion at a lowered cost;
      iii) Implement selected FI products and prototypes within the Fleet. Initial targets for implementation include surface ships such as LCS, DDG 51, and LHA's;
      iv) Develop Modular Adaptable Ship guidelines.

5. Submarine Domain (Appendix Slide 3)
   a. Continue Existing Processes:
      i) Employ the Submarine Warfare Federated Tactical System (SWFTS) System Engineering and Integration (SE&I) process to govern the SWFTS product line, which is based on interface standardization and modular design. This process ensures that all programs within SWFTS (i.e., Sonar, Tactical / Weapons Control, and Imaging) abide by their contractual obligations to utilize established SWFTS interfaces.
      ii) Deliver Advanced Processing Build (APB) 09 submarine passive sonar software segments to PEO IWS. These will be directly integrated into the surface ship sonar AN/SQQ-89A(V)15 as part of ACB11.
   b. Ensure that Ohio Replacement Program (ORP) adheres to NOA guidance and continues to embrace NOA principles in the developmental stage of the ORP, leading up to Milestone (MS) A in the third quarter of Fiscal Year 2010. This will be accomplished by sharing with the ORP lessons learned and best practices from previous TI/APB installs and open systems and architecture approaches for business models. Current efforts are already underway for reuse for the ORP with existing systems developed for Virginia Class and backfit modernization.
   c. Complete the Submarine Architecture Roadmap in second quarter of Fiscal Year 2010 which will identify the aspects of the submarine architecture that need to evolve over the next five to ten years to meet future capabilities and business needs. The roadmap includes on-going efforts to improve automated processes to reduce life-cycle costs for the production and publication of architecture artifacts, with an emphasis on exposing major component interfaces. The architecture roadmap will also address elements to reduce integration efforts for new components.
   d. Develop an APB11 Architecture design in third quarter of Fiscal Year 2010 which will consider updated middleware technologies and services to ease the effort required to integrate APB11 components into SWFTS.

6. Anti-Submarine Warfare (ASW) COI (Appendix Slide 4)
   a. Complete reviews and adopt the ASW COI Software Governance Policy and the ASW COI Software Governance Plan in FiscalYear 2010. This is an implementation of cross-Domain strategic software reuse – a key OA goal.
   b. Develop ASW COI Data Model (ACDM) version 2 to improve upon ACDM v1. It will provide a consistent naming convention, proper type declarations for each data element, utilize responses from a COI-wide data-sharing questionnaire, and concentrate efforts on information that multiple systems currently transmit. Key ASW COI systems including Undersea Warfare Decision Support System (USW-DSS, AN/UYQ-100), P-3C, P-8A, Mobile Tactical Operations Center (MTOC), AN/SQQ-89A(V)15, AN/SQQ-34C (CV-TSC), and AN/BYG-1.
   c. Host USW DSS APB09 Integrated Shipboard Network System (ISNS) on seven additional CG/DDG platforms. ACB09 includes a Consolidated Afloat Networks

Enterprise Services (CANES)-compatible architecture that provides ASW Common Tactical Picture, Situational Awareness, Mission Planning, and reduced Detect-to-Engage timelines.

d. AN/SQQ-89A(V)15 ACB11 software version 4.0, containing leveraged (OA reuse) submarine APB09 passive sonar software, will enter final production and integration beginning third quarter Fiscal Year 2010.
e. AN/UYQ-100 Undersea Warfare Decision Support System (USW-DSS) Build 2 (ACB09) Fiscal Year 2010 tactical training equipment installations planned for seven DDGs, seven aircraft carriers, and five shore sites: Dam Neck, Keyport, San Diego, Pearl Harbor, and Yokosuka. This demonstrates OA commonality across disparate platforms.

7. Command, Control, Communications, Computers, and Intelligence (C4I) Domain (Appendix Slides 5 and 6)
   a. Conclude source selection for the Afloat Core Services (ACS) that will provide a Service Oriented Architecture (SOA) solution for ISNS Increment I Modification (Mod) 5 in the second quarter of Fiscal Year 2010, as a part of the Networks Afloat Portfolio.
   b. In the second quarter of Fiscal Year 2011, conclude a 14-month assessment of the benefits and costs of two separate development efforts for the CANES Common Computing Environment (CCE) prior to entrance into four-month a down-select phase.

8. Space Domain (Appendix Slide 7)
   a. Explore architectural alternatives and technology enhancements for the follow-on to the Mobile User Objective System (MUOS) the next generation DOD UHF Satellite Communications (SATCOM) constellation.
      i) In coordination with Navy and Joint stakeholders, complete a MUOS Next-focused Science and Technology (S&T) Roadmap that will leverage current MUOS design but serve as the basis for S&T investment and future budget development.
      ii) Coordinate Naval Postgraduate School (NPS) thesis topics suggested to the PEO Space Systems-endowed Space Systems Engineering and Acquisition Chair. Topics include those that assess technical and cost benefits of MUOS Next alternatives and potential embedded technologies that improve payload resilience, integrate next-generation cell phone network technology, and enhance the spectrally-adaptive MUOS waveform. Proposals for selected topics will be finalized throughout Fiscal Year 2010, but research and analysis will likely not be completed until Fiscal Year 2011.

9. Littoral and Mine Warfare (LMW) Domain (Appendix Slide 8)
   a. Conduct Joint Counter Radio-controlled Improvised Explosive Device (IED) Electronic Warfare (JCREW) 3.3 MS C review in Fiscal Year 2011.
      i) Will leverage OA design features to implement an "open business" technology insertion/refresh strategy.
      ii) Section C of RFP mandates use of open architecture and well-defined, common standards, as well as defined hardware and software interfaces.
      iii) Section L of RFP calls for a layered, modular architecture, an open systems approach for using modular design, and standard-based interfaces and widely-supported consensus-based standards.
   b. Advanced Explosive Ordnance Disposal Robotic System (AEODRS)
      i) Host an Architecture Industry day during the second quarter of Fiscal Year 2010 to share with potential offerors PEO LMW's intentions to employ OA principles and assess industry's opinions of the plan for the Government to own data rights, to employ a modular systems approach, and to use open standards including, but not limited to, the Joint Architecture for Unmanned Systems (JAUS).
      ii) Publish the Capability Development Document (CDD) in the second quarter of Fiscal Year 2010. The CDD is anticipated to require use of a modular systems approach.
      iii) Conduct MS B in the third quarter of Fiscal Year 2010, at which time the Milestone Decision Authority will determine, among other program aspects, whether AEORDS is meeting the spirit and letter of NOA guidance.
   c. Publish the Littoral Combat Ship (LCS) OA Strategy and Implementation Plan in the second quarter of Fiscal Year 2010, and an OA Plan in the fourth quarter of Fiscal Year 2010. The OA Plan is the actual sequence of events in order to meet the strategic goals of the OA Strategy and Implementation Plan.
   d. Surface Mine Countermeasure (SMCM) Unmanned Undersea Vehicle (UUV)
      i) Deliver CDD during the second quarter of Fiscal Year 2010. The CDD will require modularity, portability, interoperability, maintainability, vendor independence, technology insertion and refreshment, compatibility with other products, reusability, scalability, expandability, and improved user productivity be considered during the design process.
      ii) Hold MS B in the second quarter of Fiscal Year 2010.
      iii) Award the Engineering and Manufacturing contract during the third quarter of Fiscal Year 2010. The winner of this contract will be expected to fully comply with NOA guidance and OA principles, per the RFP, CDD, and the yet-to-be-written contract.
      iv) Build interoperable Joint warfighting applications. SMCM UUV will be a part of the LCS Mine Countermeasure Mission Package, but will be capable of operations from other craft of opportunity. It provides high probability detection and identification with low false alarm rates, detects buried and

stealthy mines, and Intelligence Preparation of the Operational Environment (IPOE) capability.

e. Mine Warfare and Environmental Decision Aids Library (MEDAL) will demonstrate exchange of environmental data services from the NAVOCEANO Geospatial Data Services (NGDS) to the MEDAL Enterprise Architecture (EA) during the second quarter of Fiscal Year 2010.
f. Final delivery of Unmanned Vehicle Common Control Station toolset repository will occur during the fourth quarter of Fiscal Year 2010. The toolset repository will make reuse of the control station hardware and software easier, ultimately resulting in lower development and sustainment costs through greater reuse and interoperability.
g. Maritime Surveillance Systems Initial Capabilities Document (ICD) will be delivered in the fourth quarter of Fiscal Year 2010. Anticipate requirements including NOA guidance and OA principles.
h. Shallow Water Combat Submersible (SWCS) MS B will be held in the third quarter of Fiscal Year 2010.

10. Marine Corps Domain (Appendix Slides 9 and 10)
    a. Common Aviation Command and Control System (CAC2S)
        i) Anticipate issuing Phase 1 Requests for Information (RFIs) to industry that support OA precepts. These will focus on:
            (1) Joint Range Extension Application Protocol (JREAP) requirements;
            (2) Track management requirements; and
            (3) Display Framework requirements.
        ii) Hold Preliminary Design Review (PDR) in the second quarter of Fiscal Year 2011 disclosing interfaces and identifying design elements.
        iii) Hold Critical Design Review (CDR) in fourth quarter of Fiscal Year 2011.
    b. Marine Corps Enterprise Information Technology Services (MCEITS)
        i) Conduct a preliminary program self-evaluation using the OA Assessment Tool (OAAT) in the second quarter of Fiscal Year 2010 to provide an assessment of program openness for the program office. MCEITS will also provide the OAET with feedback on the OAAT tool and its processes.
        ii) Conduct a second OAAT self-evaluation prior to MS C review to be shared with the Milestone Decision Authority and the OAET. Based on any corrections taken after the preliminary assessment, this second assessment should reflect greater openness.
        iii) Prior to MS C in fourth quarter of FY 2010, conduct multiple open-forum test and evaluation (T&E) events to produce sharable and reusable modeling and simulation (M&S), Systems Engineering, Information Assurance and Requirements Traceability work products.

11. Science and Technology (S&T) Domain
    a. Develop an Integrated Topside (INTOP) specification for Surface Ship Electronic Warfare (EW)/Information Operations (I/O)/Communications Advanced Development Model (ADM). This will define the open architecture for the ADM and allow for multiple contractors to be involved in technology development.
    b. Define appropriate INTOP interface standards for integration of the various ADM systems.
    c. Persistent Littoral Undersea Surveillance – Innovative Naval Prototype (PLUS INP) is implementing as standard engineering practice modular architecture design concepts, application of open hardware and software standards, commercial processing suites, and interface definitions.

12. Open Architecture Technical Authority – SYSCOM
    a. Technical Assessment Board
        i) Define and coordinate a draft OA Technical Authority Board (TAB) charter among SYSCOM Technical Authorities and OA Technical Warrant Holders (TWH).
        ii) Develop OA Compliance Assessment List (CAL) derivation from the OAAT and incorporate it into the OA Systems Engineering Technical Review (SETR) guidance by the third quarter of Fiscal Year 2010.

B. Increasing Competition

The Responsible Parties discourage sole-source contracts except in specific cases where it may make business sense. Instead, Domains are using the *OA Contract Guidebook for Program Managers* and incorporating checklists of recommended NOA principles in RFPs and Award Fee Plans. The objective is to afford small businesses and other organizations an opportunity to compete with the providers of the Navy's traditionally vendor-locked, monolithic systems. The following contract actions will implement *OA Contract Guidebook for Program Managers* recommendations and making use of other tools, such as checklists, to ensure that RFPs and associated Award Fee plans include OA:

1. Aviation Domain
    a. E-2C & E-2D:
        i) Evaluate capability upgrades for implementation from the Core OA Study, including a Technical Information Services module. This module will allow third-party software and algorithms to be integrated into the common computing environment which is under development between Fiscal Years 2010 and 2014.
    b. Next Generation Jammer (NGJ):

i) Source Selection for the competitive Broad Agency Announcement (BAA) Technology Maturation phase contract is occurring during the second quarter of Fiscal Year 2010, with an expected award to multiple vendors.
ii) The competitive RFP for the Technology Development phase will be released during the third quarter of Fiscal Year 2010.
iii) The competitive RFP for the Engineering and Manufacturing Development (EMD) contract is scheduled to be released the third quarter of Fiscal Year 2012. Data rights will be negotiated in separate competitive contracts during the Technology Development and Engineering Manufacturing Development phases.

c. Joint Allied Threat Awareness System (JATAS):
i) The competitive RFP for the EMD contract will be released in the fourth quarter of Fiscal Year 2010.

d. CIRCM is an Army-led, Tri-Service program that shall provide the sole development of laser-based infrared countermeasure systems for all rotary-wing and tilt-rotor aircraft across the Department of Defense. The Army is leveraging the checklists in the *NOA Contracts Guidebook* for the RFP.
i) A RFP for a competitive Fixed Price contract with incentives is scheduled for released in the second quarter of Fiscal Year 2010.
ii) The program will enter at Milestone B by the end of Fiscal Year 2010. At a minimum, CIRCM will be interoperable with JATAS.

e. Joint Precision and Landing System (JPALS) Increment 1B:
i) NOA and MOSA language is being coordinated with the USAF for insertion into the program acquisition documentation.

f. Consistent with the Acquisition Strategy, P-8A Increment 2 will release a sole-source development contract RFP during Fiscal Year 2010, but will immediately allow a broad range of sub-contractor options within the prime P-8A contract. It includes multi-static active acoustics, High Altitude ASW Weapon integration, and Automatic Identification System.

2. Surface Domain
a. Conduct a competition for the procurement, fabrication, assembly, and test of the Guided Missile Director, Mark 82 Mod 0 and Director Controller, Mark 200 Mod 0 equipment and repair parts for which a mature data package exists. This equipment will be procured for new construction Aegis Destroyers.

3. Submarine Domain
a. PMS 401, PMS 425, and PMS 435 will collaborate to submit joint Small Business Innovative Research (SBIR) initiatives covering tactical and weapons control, sonar processing, and imaging. SBIRs are designed to encourage small business involvement.

4. ASW COI
   a. Competitively award the next AN/SQQ-89(V) Production Contract in late Fiscal Year 2011 or early Fiscal Year 2012, and implement the *OA Contract Guidebook for Program Managers* recommendations in this RFP. A checklist has been created for incorporation of recommended NOA principles in the RFP and Award Fee plan.

5. C4I Domain
   a. Refine the CANES Acquisition Strategy such that the Core Services approach is based upon open source solutions which provide Government Purpose Rights (GPR) for the Technical Data and Computer Software Product End Items to be utilized by CANES contractors in the Common Computing Environment.

6. Space Domain
   a. Release five SBIR topics in Fiscal Year 2010 that facilitate modernization of the force through investment in open architecture enablers and/or enhancements to current space capabilities. The scope includes possible MUOS enhancements, new capabilities on MUOS-Next, or overall DoD space system improvements.
   b. In the third quarter of Fiscal Year 2010, kick off Phase I efforts for three of five Fiscal Year 2009 SBIR topics including a multi-Service project to develop a "Low Cost Orbital Debris Removal System" that will strive to ensure interoperability between the Navy, Air Force, and NASA.
   c. Initiate or continue Phase II efforts in the second quarter of Fiscal Year 2010 on five prior year Phase I SBIRs including "Runtime Integration of NETWARS with Warfare Assessment Models," which will use an open XML schema to provide improved interaction between NETWARS and the NSS (Naval Simulation System), thereby allowing third parties to integrate modeling systems to provide higher fidelity simulations with developments and artifact sharing using the NESI Collaboration Site.

7. LMW Domain
   a. JCREW 3.3
      i) Pursue an independent assessment to identify an acquisition strategy to fully capitalize on the open business models offered by the OA design.
      ii) Award initial system development contract in the second quarter of Fiscal Year 2010. RFP included *OA Contract Guidebook for Program Managers* recommendations. A source selection criterion includes evaluation of offerers' proposed OA designs and the contract requires routine metrics to track OA compliance.
   b. AEODRS
      i) Issue RFP in the fourth quarter of Fiscal Year 2010. The AEODRS family of systems will include common, open architecture elements to include logical,

electrical, and physical interfaces. The logical architecture is based on SAE AS-4 JAUS (Joint Architecture for Unmanned Systems)

ii) Award Engineering and Manufacturing Development contract in the fourth quarter of Fiscal Year 2010.

c. Conduct alternative platform Original Equipment Manufacturer prototype evaluations for the Mark 18 Explosive Ordnance Disposal (EOD) Unmanned Underwater Vehicle (UUV) in Fiscal Year 2010.

d. Define LCS critical Mission Module interfaces in Fiscal Year 2010, evaluating proprietary interfaces for potential migration to open interfaces.

e. Produce a software development kit to support the MEDAL open business model.

f. Issue MSS RFP for a full and open competition for a new prime contract in the first quarter of Fiscal Year 2012.

g. Shallow Water Combat Submersible (SWCS)

i) Issue draft RFP during the second quarter of Fiscal Year 2010 and the final RFP in the third quarter of Fiscal Year 2010.

ii) Contract Award is expected in the third quarter of Fiscal Year 2010.

8. Marine Corps Domain

a. Common Aviation Command and Control System (CAC2S) will release a full and open competitive Firm Fixed Price RFP for the first component of Increment 1 of the Sensor Data System (SDS) / Low Rate Initial Production (LRIP) Engineering Change Proposal (ECP) kit development contract during the second quarter of Fiscal Year 2010, with contract award in the fourth quarter of Fiscal Year 2010. ECP kits enable technology insertion and modifications to previously procured Combat Operations Centers (COCs) and MRQ-12 Communications Systems.

9. S&T Domain

a. Award multiple Fiscal Year 2010 INTOP competitive contracts for the EW/IO/Comms ADM system.

b. Award multiple Fiscal Year 2010 INTOP competitive contracts for diverse Shop Replaceable Units as parts of the EW/IO/Comms ADM system. This goal is specifically enabled by the modular open architecture of the ADM system and will demonstrate the potential for multiple vendor competition for portions of the system.

c. Award multiple Fiscal Year 2010 INTOP competitive contracts for Submarine Wideband Satellite Communication Antenna ADM Subsystem.

C. NOA-Based Development and Testing

Fielding systems follows extensive development and testing efforts. The following specific goals and the associated actions will be taken in Fiscal Year 2010 in the area of developing and testing NOA-Based Systems prior to their ultimate fielding in later years:

1. Aviation Domain
   a. Broad Area Maritime Surveillance (BAMS):
      i) Conduct a PDR in Fiscal Year 2010. There are expectations that OA requirements will continue to flow into specifications, including System/Segment Specifications and Software Requirement Specifications. Additionally, expect that the Prime Contractor will continue to refine deliverables that provide insight into OA principles.
      ii) Report on its KOSS implementation and OA plan within an Open Systems Management Plan (OSMP) prior to the PDR.
   b. JPALS will be monitored at a PDR in Fiscal Year 2010 and subsequent SETR events to ensure the contractor does not change its design by inserting proprietary technologies or software into the design without the contracting officer's approval.
   c. Conduct the first flight of the X-47B Unmanned Combat Air System CV Demonstration (UCAS-D) in Fiscal Year 2010. Begin envelope expansion by flying at various altitudes while testing the avionics and ship integration architectures with an F/A-18 surrogate to determine the safe operating parameters of aircraft. This program is demonstrating how to incorporate the OA attributes of scalability and portability into software design and applications.

2. Surface Domain
   a. Align SSDS to a cyclical Advanced Capability Build (ACB) / Technology Insertion (TI) framework.
   b. SSDS [Aircraft Carriers]
      i) Deliver SSDS MK 2 OA software build incorporating new Linux OS and RAM BLK 2 integration in the second quarter of Fiscal Year 2010.
      ii) Commence SSDS MK 2 Mod 1C hardware procurement in the second quarter of Fiscal Year 2010.
      iii) Conduct CVN 78 SSDS MK 2 Mod 1C System Functional Requirements (SFR) Review during the third quarter of Fiscal Year 2010.
      iv) Conduct SSDS MK 2 Mod 1C PDR and CDR in Fiscal Year 2011.
   c. SSDS [Amphibious Ships]
      i) SSDS MK 2 Mod 5C SSR during the second quarter of Fiscal Year 2010.
      ii) SSDS MK 2 Mod 5C Hardware PDR/CDR in the second and third quarters of Fiscal Year 2010 respectively.
      iii) SSDS MK 2 Mod 5C Software PDR in the third quarter of Fiscal Year 2010.
   d. Conduct an ACB12 Critical Design Review (CDR) for Aegis combat systems in Fiscal Year 2010, where the Government will have access to the initial set of artifacts, including component descriptions and interface definitions.
      i) Evolve the Aegis ACB12 Architecture to include enterprise tactical components of System Track Manager and Track Server (STM/TS) including integration of both components in the Command and Decision System and the TS in the Aegis Display System.

ii) Deliver an initial System Architecture Document (SAD) as part of the Aegis ACB 12 CDR Technical Package for approval by the Naval Review Team. The SAD aligns AMOD with Navy Objective Architecture approach as described in the Surface Navy Combat Systems Development Strategy AMP and the November 2008 Naval OA Report to Congress. It will be delivered as part of the final technical data package in FY12.

iii) Evolve the Software Design Documents (SDD) as Part of the CDR and Software Development and Design Process.

e. Refine ACB 14 candidate list for Aegis and SSDS platforms through technical analysis and cost studies.

3. Submarine Domain

a. Deliver capabilities in a timely and cost effective fashion via APBs and TIs. The APB/TI process facilitates competition and collaboration and ensures lifecycle affordability. These APB/TI bundles are common across also submarine classes. APB/TI events occurring in Fiscal Year 2010 are:

i) Complete capability definition of APB09/TI10 in the second quarter of Fiscal Year 2010 for all submarine classes.

ii) Commence integration and test of APB09/TI10 in the second quarter of Fiscal Year 2010 for all submarine classes.

iii) Complete capability definition of APB11/TI10 in the third quarter of Fiscal Year 2010 for all submarine classes.

iv) Commence capability definition of APB11/TI12 in the fourth quarter of Fiscal year 2010 for all submarine classes.

4. ASW COI

a. ACB11 for Surface Sonar (AN/SQQ-89A(V)15) will implement APB09 passive sonar software via an ARCI developed passive processor. APB processing products will begin to allow for a common APB display format.

b. The Surface ASW Synthetic Trainer (SAST) that is derived from the Submarine Multi-Mission Tactical Trainer (SMMTT) will replace obsolete legacy on-board trainers, resulting in a portable capability for Fleet usage. SAST leverages existing submarine SMMT High-Level Architecture (HLA) interfaces to support Naval Continuous Training Environment (NCTE) connectivity and leverages existing SMMTT Acoustic Instructor Console (AIC) scenario controls.

c. In ACB11, the Underwater Fire Control Segment (UFCS) of the AN/SQQ-89A(V)15 will implement the submarine Tactical Data Repository (TDR) as a first step in the re-architecture of the segment. The TDR will reduce the size and functional requirements of the Contact Management Data Processing (CMCP) Computer Software Configuration Item, which will in turn reduce the dependency on obsolete code within the UCFS.

d. Implement Aircraft Carrier – MH-60R integration and a Vehicle Control common processing component via the Carrier Tactical Support System (AN/SQQ-34C).

i) Conduct a Business Case Analysis to determine the best migration path to enterprise component development for vehicle control.
ii) This component will become an enterprise software component of the PEO IWS Objective Architecture in accordance with the PEO IWS ADD. It allows for integration of off-board sensors/systems with shipboard systems to detect, classify, and localize threats via exercising sensor control of off-board sensors, processing and distribution of sensor data, and exchange of tactical data with embarked aircraft.

e. The Real-Time Service-Oriented Architecture (RT-SOA) initiative will develop a reusable technology to enable deterministic Common Undersea Picture data exchange among ASW COI domains. This effort implements open source Object Management Group (OMG) Standard Real Time Data Distribution Service (DDS) messaging formats into the Red Hat JBOSS Enterprise Service Bus stack.
i) Software developer kits will be delivered to ASW COI developers in Fiscal Year 2010 for evaluation.

5. S&T Domain
   a. SOA prototype will support COMPACFLT planning and assessment capabilities.

D. NOA-Based Fielding

Since NOA is intended to bring increased system capability to the Fleet sooner and at reduced cost, it is useful to recognize where this is taking place. Specific goals and the associated actions that will be taken to achieve those goals in the area of Fielding NOA-Based Systems include:

1. Aviation Domain
   a. Increment 1A will be fielded to the P-3C in the third quarter of Fiscal Year 2013 following operational testing and Full Rate Production (FRP). During the third quarter of Fiscal Year 2010, it will also be transitioned to the P-8A program, which is in the System Development and Demonstration phase. It includes Passive, multi-static active acoustics; Imaging radar; EO/IR; MK-54 torpedoes and SLAM-ER.

2. Surface Domain
   a. Continue delivery of ACB08, also referred to as COTS Refresh 2 (CR2), the first capability delivery under the ACB / TI model, introducing new COTS technology and modular components (including SPY-1A, Weapon Control, and Display services) within the combat system software. One ship received ACB08 in Fiscal Year 2009; it will be followed by two additional platforms in Fiscal Year 2010.

3. Submarine Domain
   a. Continue retrofitting all submarine classes (except Ohio Class) with the SWFTS product line at planned two-year intervals via the APB/TI process to add new capability.
   b. Begin delivery of APB09/TI08 in the third quarter of Fiscal Year 2010, providing improvements in operator Human-Machine Interfaces, Information Assurance, and processing, adding subsystem capability, and incorporating an Under-Sea Warfare Decision Support System (USW DSS).

4. C4I Domain
   a. In conjunction with the CANES refresh strategy, which outlines an incremental plan to develop and field Application Builds annually, the PEO C4I Early Adopter (EA) initiative will field advanced CANES-like capabilities aboard 16 ships in Fiscal Year 2010 for operational use and evaluation. In Fiscal Year 2010, fielded capabilities include the ISNS Increment 1 Mod 5 and SCI EAs.

5. Space Domain
   a. MUOS will launch four operational geosynchronous satellites and a spare between Fiscal Years 2011 and 2015, carrying both a legacy UHF payload and new MUOS payload. An end-to-end legacy UHF capability will be available to the warfighter using existing radios shortly after the launch of the first vehicle in Fiscal Year 2011. The end-to-end MUOS capability will start fielding with Joint Tactical Radio System (JTRS) terminals and enterprise network management in Fiscal Year 2012.
   b. In Fiscal Year 2010, MUOS will continue waveform software development, JTRS IR version update deposit, and MUOS waveform collaboration with radio developers. Will execute a robust program of factory testing of end-to-end ground software elements both internal and joint external (i.e. simulated user terminals), in addition to continued integration and testing of satellite hardware and software.

6. LMW Domain
   a. MK 18 EOD UUV
      i) Define interfaces for future incremental Advanced Capability Builds (ACB) in Fiscal Year 2010.
      ii) While the first variants have already been fielded, the second upgrade, (Block B Retrofit) begins the fourth quarter of Fiscal Year 2010.
   b. LCS
      i) In the second quarter of Fiscal Year 2010 deliver a common hardware architecture which supports all three mission packages (Mine Countermeasures (MCM), Surface Warfare (SUW), and Anti-Submarine Warfare (ASW)) aboard LCS 2 via Mission Package Computing Environment version 1.8.
      ii) Deliver Multiple Vehicle Communication System (MVCS) version 2.1 to LCS 2 in Fiscal Year 2010.

iii) Prepare MVCS version 2.2 for delivery in the second quarter of Fiscal Year 2010 and version 2.3 in the fourth quarter of Fiscal Year 2010.

c. Deliver Increment 2 of the SMCM UUV's User Operational Evaluation System to the Fleet as a stand alone roll-on/roll-off system providing high resolution imagery for mine hunting from MCM ships in Fiscal Year 2010.
d. Deliver the first MEDAL increment, the Global Server, in Fiscal Year 2010.
e. Demonstrate Unmanned Vehicle Common Control Station toolsets to NAVAIR and PEO Submarines in the third quarter of Fiscal Year 2010.

7. Marine Corps Domain
   a. MCEITS is delivering one increment with Releases 0, 1, and 2 followed by Pre-Planned Product Improvements (P3I) for Rapid Technology Insertion.
      i) As part of IOC during the fourth quarter of Fiscal Year 2010, deliver releases 0 and 1 with a design that fully supports Joint and Marine Corps architectures and satisfies technical requirements for Net-Centric military operational activities, including information access and collaboration.

8. S&T Domain
   a. Transition Multi-Function Electronic Warfare (MFEW) modular open architecture ADM technology to acquisition community through the SEWIP Program.
   b. Transition SOA prototype to PEO C4I acquisition via the CANES program. This open source prototype enables data exchange between previously stove-piped near-real time and C2 systems.

E. Cross-Program and Cross-Domain Linkages

Reuse of existing assets across multiple platforms offers the potential for savings, not only via economies of scale due to quantity purchases and single development expenses, but also in reduced logistics and maintenance costs. It is important therefore, that programs know what solutions already exist to which the DoD has GPR before building or acquiring redundant capability. The Naval Enterprise has now connected three asset reuse databases via a federated search capability to provide program managers with the ability to see what material solutions already exist. These are the Surface Domain's Software-Hardware Asset Reuse Enterprise (SHARE) repository, the C4I Domain's Net-centric Enterprise Solutions for Interoperability (NESI) collaboration site, and the Defense Information Systems Agency's Forge.mil environment. Defined interfaces are a necessity for reuse of existing components.

Specific actions that will be taken in the area of Cross-Program and Cross-Domain Linkages include:

1. OAET / PEO IWS 7B
   a. Quarterly Open Architecture Reports to Congress.

b. Conduct or assist with program assessments using the OA Assessment Tool, as requested by program managers.
c. Population of a consolidated OA Assessment Results database.

2. Aviation Domain
   a. AIR-1.0 is structured to provide common systems across multiple platforms. The Collaborative Warfare (CW) project is an AIR-1.0 Fiscal Year 2010 new start which seeks to ensure Naval Aviation warfighter needs drive coherent network investments. A principal tenet of CW is that networking investment strategies must utilize common systems and NOA approaches to be cost effective, scalable and provide rapid fielding in response to a changing threat. The Fiscal Year 2010 plan implements a Capabilities Based Assessment (CBA) using modeling and simulation from the Warfare Analysis Department. Early prototyping will begin with the E-2 platform.
   b. PMA-290, the Maritime Patrol and Reconnaissance Program Office, will continue support of the Maritime Patrol and Reconnaissance Force (MPRF) COI, composed of the P-8A (IOC: 2013 / FOC: 2018); EP-3 / EP-3 follow-on; BAMS UAS (IOC: 2015/FOC: 2019) and TOC/MTOC TACMOBILE (formerly TSC/MOCC) programs.
      i) Conduct MPRF program alignment.
      ii) Develop MPRF data strategies supporting models/architectures.
      iii) Explore MPRF opportunities for common solutions and processes.
   c. Make progress toward establishing Sensor-Platform Interface and Engineering Standards (SPIES) Electro-Optical / Infrared (EO/IR) standards. In Fiscal Year 2010, the Air Domain will perform analysis and develop a roadmap focused on future aircraft architecture designs, components, and technologies related to sensor interfaces and the movement of image data, metadata, and command and control functions in future aircraft.
      i) Form a SPIES Aircraft Architecture Science and Technology Roadmap and Analysis Working Group organizational committee during the second quarter of Fiscal Year 2010 to focus on sensors and aircraft architectures characterizing data processing interfaces. It will build upon earlier work in these areas by NAVAIR, NAVSEA Crane, and Naval Research Laboratory (NRL).
      ii) During the second quarter of Fiscal Year 2010, develop an Integrated Government/Industry cost model to better understand which interface elements are the most cost sensitive at different phases of a platform/sensor life cycle.
      iii) Deliver Interface Standardization Analysis and Report during the third quarter of Fiscal Year 2010.
      iv) Commence definition/development of interface standards in the fourth quarter of Fiscal Year 2010.
      v) Submit standards for DISA acceptance starting during the fourth quarter of Fiscal Year 2010.

d. E-2C and E-2D will evolve toward a Common Computing Architecture with a common Operational Flight Program baseline. E-2C Core OA design will take place in Fiscal Year 2010. Core OA is an ACAT IV T program and is on schedule to develop design artifacts for integrating a version of the E-2D mission computer on the E-2C and third party application integration.

3. Surface Domain
   a. Refine and employ the Navy Technical Reference Model (NTRM). This work focuses on the integration and alignment of cross-Domain architectures and can be used to identify and map platform functionality to roles and responsibilities for the PEO's as well as other organizations.
   b. Evolve the Fiscal Year 2009 PEO IWS ACB/TI Guidance to include detailed processes which can be utilized across PEO IWS for more collaborative and rigorous ACB capability planning and program alignment. The goal is to develop an integrated roadmap for each ACB and TI to include integrated cost analysis, risk management, and configuration management processes. Stakeholders involved in this process also include representatives from PEO Ships, LMW, C4I and other Domains.
   c. Work with PEO C4I to leverage ONR S&T efforts on real-time Service Oriented Architectures to develop a Publish/Subscribe bridge between combat systems and CANES.
   d. Incorporate Common Display System (CDS) and Common Processing System (CPS) as integral elements of the Aegis, SSDS, and DDG 1000 (CDS only) Combat Systems.
   e. Continue development of reusable combat system software components (System Track Manager and Track Server (STM/TS)) which facilitate systems engineering and management processes that support development of core combat system software by third parties.
   f. The software development associated with Aegis and SSDS integration efforts will decrease as the systems become more modular.
   g. Building on the CDS, CPS, and STM/TS efforts, continue evolution of an integrated approach to common component development that is aligned with the Product Line architecture described in the Surface Combat System ADD, version 1.0. Preliminary analysis has begun for the common vehicle control (e.g., MH-60R integration for Aegis, SSDS, DDG 1000 and LCS). In Fiscal Year 2010, planning and analysis will begin for the resource management (ASW, EW, and vehicle coordination and control), and sensor management (SEWIP, MH-60R, Layered Defense, AMDR) functional domains; this work will require collaboration within and across the stakeholder PEOs.
   h. Align SSDS to an ACB / TI framework.

4. Submarine Domain
   a. Ohio Replacement Program (ORP) Commonality Efforts:

i) Continue development of a submarine common missile compartment component in partnership with the UK.
ii) Investigate the feasibility of developing a common attack control center component which can also be used with the Virginia Class Submarine (Blocks 4/5) and with ORP.
iii) Initiate planning to extend the SWFTS Combat System product line to incorporate ORP.

b. Incorporate and field the IWS 5 USW-DSS system in SWFTS. This net-centric ASW capability will be delivered to a Virginia Class submarine in Fiscal Year 2010 via the APB/TI process.
c. Initiate planning for the incorporation of CANES into Submarines to increase commonality with other Navy C4I networks.
d. Continue participation in the ASW COI. This participation includes the TEAM Sub assessment of the applicability of the ASW data model for utilization in SWFTS.

5. ASW COI
   a. Enable Common Undersea Picture data exchange among AN/UYQ-100, AN/SQQ-89A(V)15, AN/SQQ-34C Inc. 2, AN/BYG-1, Combat Control and Theater environments via the RT-SOA initiative.
   b. Implement coordinated Engineering Measurement Programs (EMP) for surface and submarine ASW systems to provide commonality in data used for design and analysis of new algorithms.
   c. Deliver ASW COI Data Model (ACDM) version 2 in the second quarter of Fiscal Year 2010 to USW DSS Build 2 and the Carrier Tactical Support Center (CV-TSC) with ASW Command and Control (C2) software interoperability improvements and C2 vocabulary harmonization for track, mission planning and sensor metrics.

6. C4I Domain
   a. As part of the CANES Program, continue to reduce the number of shipboard networks in the Fleet from four to one by Fiscal Year 2012.
   b. Within the Maritime Domain Awareness portfolio, individual capability components will continue to be delivered to the NESI Collaboration Site and scanned for data rights releasability and reuse of Open Source Software (OSS).
   c. Continue to use Maritime Domain Awareness individual capability components from NESI to create additional Maritime Domain Awareness implementations.
   d. The NITES-Next program will continue to utilize the NESI Collaboration Site for program design and development activities.

7. Space Domain
   a. Deposit the MUOS Common Air Interface Waveform version 1.3 (CAI WFv1.3) in the Joint Tactical Radio System Information Repository (JTRS IR) in the fourth

quarter of Fiscal Year 2010 for both JTRS and third party terminal/radio developer access.

8. LMW Domain
   a. Continue the MK 18 EOD UUV multiple sub-system evaluations for future upgrade candidates via close collaboration with the Office of Naval Research (ONR) Technology Transition Agreements.

9. S&T Domain
   a. The INTOP program will define modular, scalable, open architectures that can support Radio Frequency (RF) requirements across platforms. Initial prototypes to meet surface and subsurface requirements are in development. The INTOP program is cross-cutting in that the technology developed is scalable to meet the differing operational requirements for integrated EW, communications and radar systems on multiple combat system platforms.

III. Fourth Quarter of Fiscal Year 2009 Accomplishments

The following accomplishments were achieved since the Seventh Open Architecture Report to Congress was submitted in September 2009 and cover the period from July through September of 2009:

1. OAET / PEO IWS 7B
   a. Revised and updated the OA Assessment Tool; version 3 incorporates streamlined questions for ease of use and realigns scoring algorithms to enhance its effectiveness. Version 3 was published on the NOA website.
   b. Posted the Aviation Domain's KOSS tool and explanatory information on the NOA website.
   c. Provided support to the Technology Assessment Working Group of the National Defense Industry Association (NDIA) study on Anti-Surface Warfare (ASUW) to identify potential cost drivers to the new technologies and understand current Programs' of Record environments, including contracts, openness of systems, and technology refresh plans.
   d. Participated in the NDIA government/industry symposium on ASW to discuss NOA applications.
   e. Verified Modular Open System Approach (MOSA) compliance of seven programs and issued compliance verification letters for the following programs:
      i) Ship Self-Defense System (SSDS)
      ii) Naval Tactical Command Support System (NCTSS)
      iii) NATO Sea Sparrow Missile System (NSSMS)
      iv) Close-In Weapon System (CIWS)
      v) Battle Force Tactical Trainer (BFTT)
      vi) Cooperative Engagement Capability (CEC)

vii) Mk 38 Mod 2 Machine Gun System

f. Received the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN RD&A) Acquisition Excellence Award for increasing contract competition across the Navy and Marine Corps.

2. Aviation Domain

a. Awarded competitive, Cost Plus Incentive Fee contracts for the Technology Demonstration (TD) phase of JATAS to Lockheed Martin Corp., Missiles and Fire Control, Orlando, FL and ATK Integrated Systems, Clearwater, FL. These contracts provide for the design, development and demonstration of competitive prototypes for an advanced missile warning system to be installed on Navy and Marine Corps helicopters to increase survivability in hostile environments. This is PEO(T)'s first program to implement the new guidance for competitive prototyping under the current DoD 5000.2. The JATAS TD contract emphasized the business and technical checklists in the NOA Guidebook and the use of OAAT assessments and an OSMP as an annex within the SEP. The RFP has been provided to the OAET to share best practices with the Enterprise.

b. The Technical Development Strategy (TDS) for the NGJ, which included an OA strategy, was signed by AT&L on 8 September.

c. NAVAIR OA Tech Authority and NAVAIR Senior Intellectual Property Legal Counsel, as part of the PMA-272 technical team, conducted a MOSA Industry Day for the Army-led joint CIRCM program in Huntsville, AL on August 19 and 20, 2009.

d. PEO(A) EO/IR SPIES:

i) The results and recommendations of the SPIES/Society of Automotive Engineers (SAE) Technical Assessment Panel were presented to the SPIES Government Overview Committee, chaired by NAVAIR Avionics Director, AIR-4.5 in July. The Technical Assessment Panel recommendations were accepted. The SAE is requested to establish appropriate committees and working groups to develop interface standards in accordance with the recommendations of the Technical Assessment Panel.

ii) SPIES Sensor Science and Technology Roadmap and Analysis Working Group was formed in August. The basic goal of the working group will be to develop a roadmap of sensor technology applicable to NAVAIR (and eventually other DoD organizations), to analyze the roadmap technologies and determine how the various sensor interfaces might be affected in the future and what types of standards may be needed.

e. PMA-231 held an E-2C Core OA KOSS event during an OA Technical Interchange Meeting (TIM) on 9 July at Northrop Grumman Corp. (NGC), Bethpage, NY. The KOSS process has been designed to support Program Managers in identifying the volatile Subsystems/ Components that would yield the greatest benefit to lifecycle affordability by applying MOSA/NOA principles to

those subsystems where the Navy and industry will get the best ROI and post-IOC benefits of reduced cost and time to field upgrades.

f. The Navy's Unmanned Combat Air System (N-UCAS) Program focused on exploiting scalability design principles from the commercial world in order to achieve OA benefits. PMA-268 has been collaborating with other government agencies, labs, universities, and industry to understand how to apply the principles of scalable systems to the next generation, integrated, open weapon systems.

g. PMA-265 responded to questions from *Defense Daily* on F/A-18 OA implementation efforts in August.

h. PMA-268 interviewed with *Defense Daily* in August on progress of N-UCAS OA efforts for a "clean sheet" aircraft design, including the development of scalability design principles.

i. JPALS conducted a TIM on Open Architecture requirements and design with the JPALS EMD Team (Raytheon/Rockwell Collins) in September 2009. The JPALS architecture working group meets monthly to ensure system requirements and interfaces are in accordance with open architecture design principles.

3. Surface Domain

a. SEWIP

i) Awarded SEWIP Block 2 contract, which satisfied many NOA tenets. Used results from performing an OA Assessment of SEWIP Block 1B to identify how to make SEWIP Block 2 more open. Used the NOA Contract Guidebook extensively in developing the SEWIP Block 2 contract for selection criteria and for contract execution to ensure that OA is build into the product. Leveraged and reused products developed by ONR's MFEW S&T effort to reduce risk and improve system performance. The winning prime is wholly reusing many of the released software modules, including software for pulse processing, HSI/displays, adjunct sensor interfaces and some firmware.

ii) SEWIP Block 2 is developing a new combat system interface based on open standards for Publish and Subscribe, aligning exactly with the Objective Architecture and both Aegis and SSDS ACB14.

b. SHARE repository usage statistics during the fourth quarter of Fiscal Year 2009:

i) Processed 33 (23 government/10 industry) new registration applications. There have been a total of 377 government/industry registrants; currently there are 247 users.

ii) Received requests for 17 assets during this quarter. There have been a total of 318 assets requested; 29 are outstanding.

iii) Audited and made available the Multi-Sensor Integration fusion algorithm from PEO(T) PMA-231. A total of 78 assets (68,602 artifacts) are available in SHARE.

4. Submarine Domain
   a. SWFTS consolidation of submarine combat systems continues to realize savings in resources and has improved the ability to field new capabilities more rapidly.
      i) One example of the cost avoidance realized by SWFTS: by developing an enterprise Information Management / Information Technology architecture for all five platform classes of submarines using NOA and COTS-based systems, PEO Submarines was able to reduce the budgeted amount for electronics for Block III of the Virginia Class submarines by $38M per ship.
   b. Competitively awarded contracts for Tactical Control, Weapon Control, and Integrated Submarine Imaging System (ISIS).
   c. TI 08/APB 07 installed on three submarines.
   d. Published SWFTS Build 8-9.2 for APB09/TI08. Applicable to SSGN, Virginia, Seawolf, and Los Angeles class submarines and incorporates TEAM Subs Programs of Record, including Sonar, Tactical / Weapons Control, and Imaging.

5. ASW COI
   a. Installed AN/UYQ-100 Undersea Warfare Decision Support System (USW-DSS) Build 2 (ACB09) on DDG 62, CG 71, CVN 72, and at three shore sites (Naval Oceanography Command Detachment, Patuxent River Naval Air Station, and CTF 34. The CG 71 and CVN 72 installations were hosted on ISNS hardware, making this the first installation of UWS DSS on a common hardware suite under the ISNS/CANES fielding plan. ACB09 includes a CANES-compatible architecture that provides ASW Common Tactical Picture, Situational Awareness, Mission Planning and reduced Detect-to-Engage timelines.
   b. Delivered Submarine ARCI APB09 software, which include ASW functionality for Wide Aperture Array, High Frequency Chin Array, and Hull Arrays, to PEO Submarines for production integration. APB09 also baselines Undersea Warfare Decision Support System (USW-DSS) functionality into AN/BYG-1.
   c. Commenced Submarine ARCI APB09 installations, which include ASW functionality for Wide Aperture Array, High Frequency Chin Array, and Hull Arrays. APB09 also baselines Undersea Warfare Decision Support System (USW-DSS) functionality into AN/BYG-1.
   d. The ASW COI Data Model (ACDM) v1 was implemented in USW DSS Build 2 and the Carrier Tactical Support Center (CV-TSC) to support ASW command and control software interoperability improvements cross-platform tactical data exchange.

6. C4I Domain
   a. Implemented an enterprise capability road mapping methodology which encompasses 28 unique portfolios from seven program offices and focuses the command's investment strategy into an integrated C4I Roadmap. The integrated roadmap is updated regularly, is based on individual Program of Record Acquisition Program Baselines, and is a fundamental component of the annual

warfighter communications resources. Three SBIR Phase I solicitations were released, to be awarded in the third quarter of Fiscal Year 2010, including two efforts that will be worked collaboratively with the Air Force and/or NASA to remove large orbital debris and enhance the development process for space-qualified hardware.

8. LMW Domain
   a. MK 18 EOD UUV disclosed Common Operator Interface – Navy (COIN) system specifications to applicable OEMs. Disclosure of interfaces is a necessary step in creating modularity, which can lead to increased competition for individual modules.
   b. LCS 3 and LCS 4 contract was awarded in the fourth quarter of Fiscal Year 2009. The inherent modularity of these ships forces implementation of NOA guidance and OA principles.
   c. LCS Multiple Vehicle Communications System version 2.1 was delivered to LCS 1 in the fourth quarter of Fiscal Year 2010. The LCS Multiple Vehicle Communications System is an excellent example of reuse leading to improved interoperability.

9. Marine Corps Domain
   a. CAC2S
      i) Previous iterations of the CAC2S operating environment were retooled to provide greater simplicity, requiring significantly fewer interfaces and data intermediaries.
      ii) Conducted an Industry Day to provide a better understanding of the CAC2S program to potential integrators.
   b. MCEITS
      i) Conducted an open forum PDR and CDR, disclosing artifacts and interfaces to Marine Corps Program Offices and industry.
      ii) Held kickoff and planning meetings for two successive Fiscal Year 2010 OAAT assessments.
      iii) Adopted the Pre-Planned Product Improvement (P3I) process to enable the program to keep pace with the continuously evolving DoD Net-Centric enterprise. Each P3I cycle will test, assess operational utility, integrate, and deliver increased capability to meet cost, schedule and performance objectives.
      iv) Competitively awarded an Indefinite Delivery Indefinite Quantity (IDIQ) contract to cover the scope of the MCEITS program. Contract language included provisions for meeting "OA Standards and Practices."
      v) Interfaces have been defined through MOUs with the various counterpart agencies.
      vi) DoD Architectural Framework (DODAF) architectural products from the CDD and the ISP were approved for MS B.

10. S&T Domain
    a. Completed development and testing of the MFEW ADM system.
    b. Developed a modular open architectural approach for INTOP Program.
    c. Developed open source SOA that informs acquisition of CANES, ACS and the U.S. Air Force's Air Operations Center (AOC) weapon system, as well as facilitates the transition of these capabilities.
    d. Completed two Limited Technical Experiments involving intensive Fleet participation using the CANES SOA prototype to validate its utility and technical maturity.
    e. The ONR robust SOA prototype resulted in an open source capability which facilitated multi-vendor competitive acquisition for 'best of breed' command and control (C2) applications.
    f. PLUS INP efforts:
        i) Established a Memorandum of Understanding with PEO IWS 5 and Commander, Naval Meteorology and Oceanography Command (CNMOC) to work collaboratively in the IWS technology insertion process to facilitate product transition in the future.
        ii) Leveraging the ASW COI Data Model to support commonality of data.
        iii) Joined the ASW COI System Engineering Team to follow the initiatives of the Data Management Working Group.

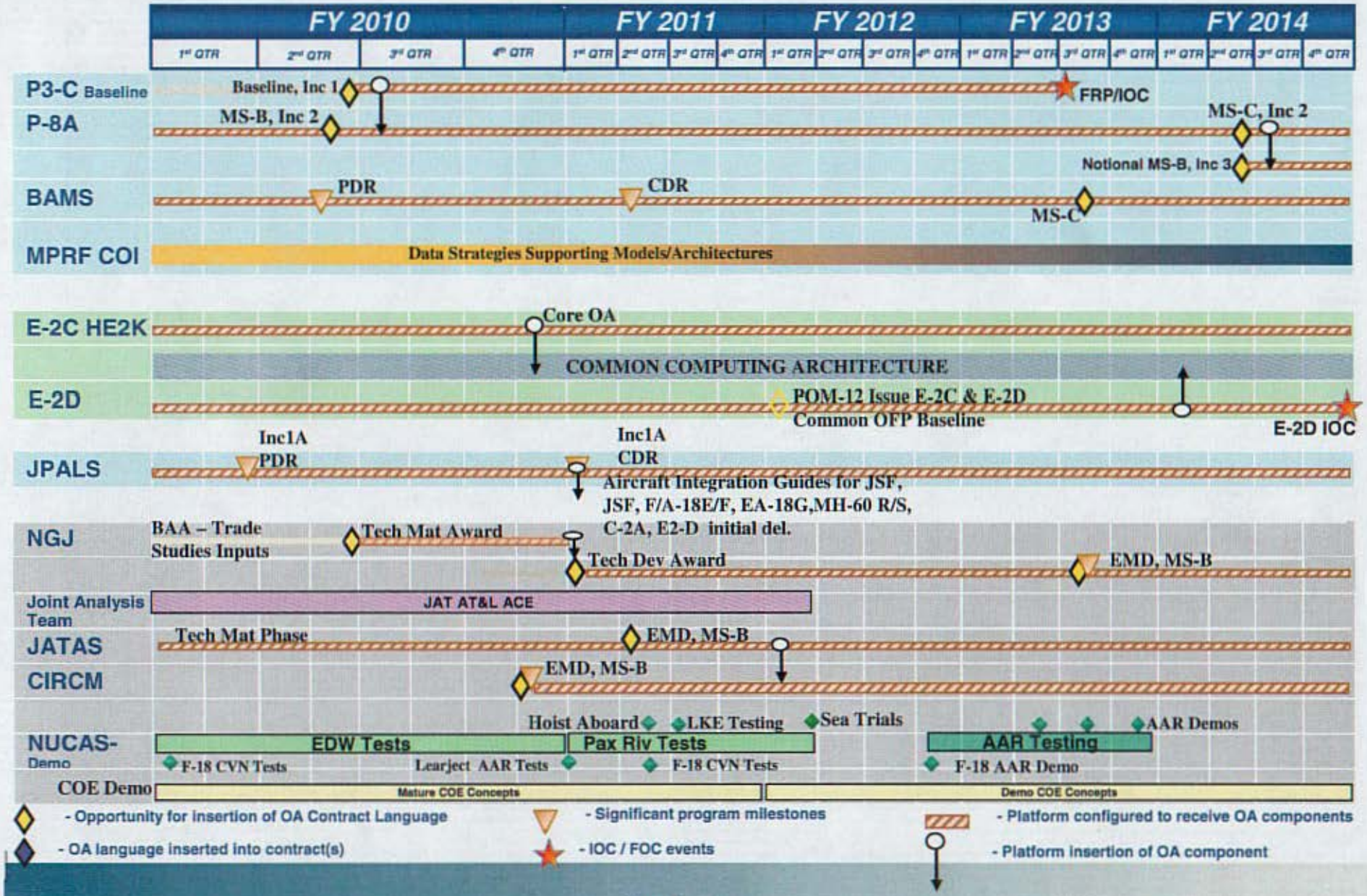
IV. Summary

The goals and planned actions covered in this report form the basis of what will become the NOA Enterprise Plan. All Domains are conducting activities in the areas of Developing Requirements, Expectations, Policy, and Guidance; Increasing Competition; Fielding NOA-Based Solutions; and Establishing Cross-Program and Cross-Domain Linkages. Through these activities, the Navy and Marine Corps are driving NOA principles into their Programs of Record. Subsequent reports will allow Leadership to measure the Domains' progress against their goals and planned activities laid out herein as they move to an ever more collaborative Enterprise-wide strategy of systemic open architected acquisition.

V. Appendix

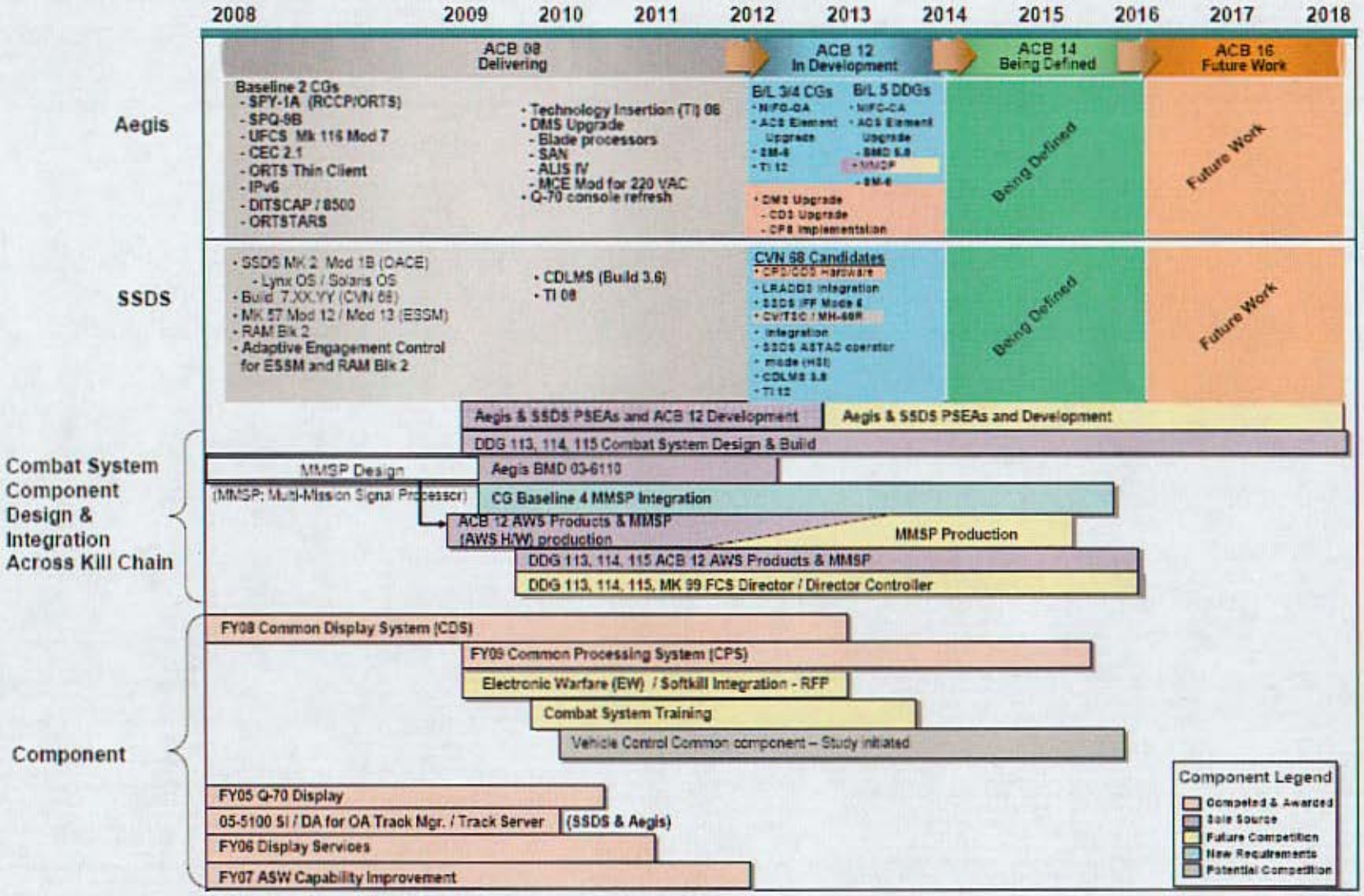
Visual representations of the planned OA activities described in this report have been provided by the Domains as individual Domain Roadmaps.

Aviation Domain Implementation Roadmap

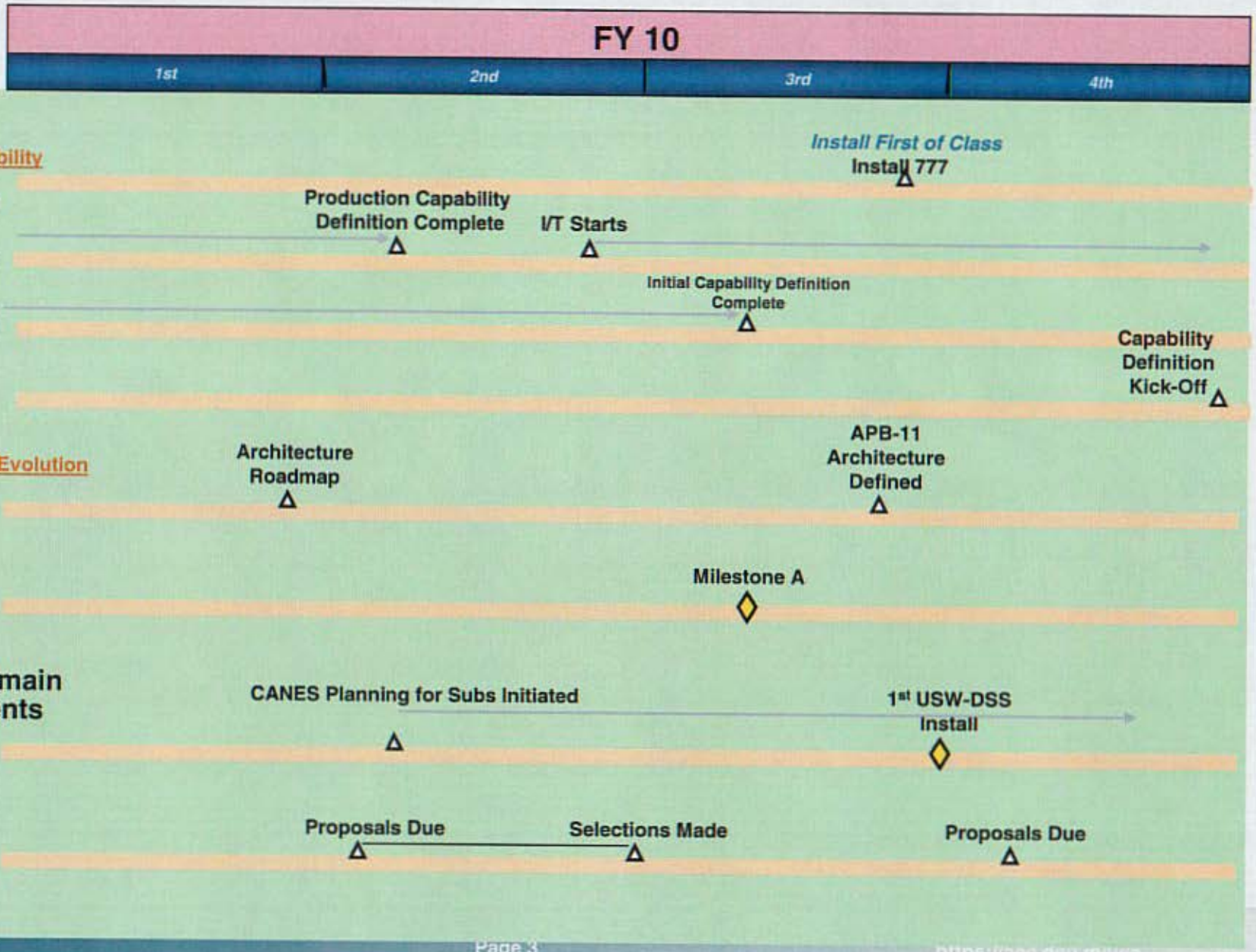


https://acc.dau.mil/oa

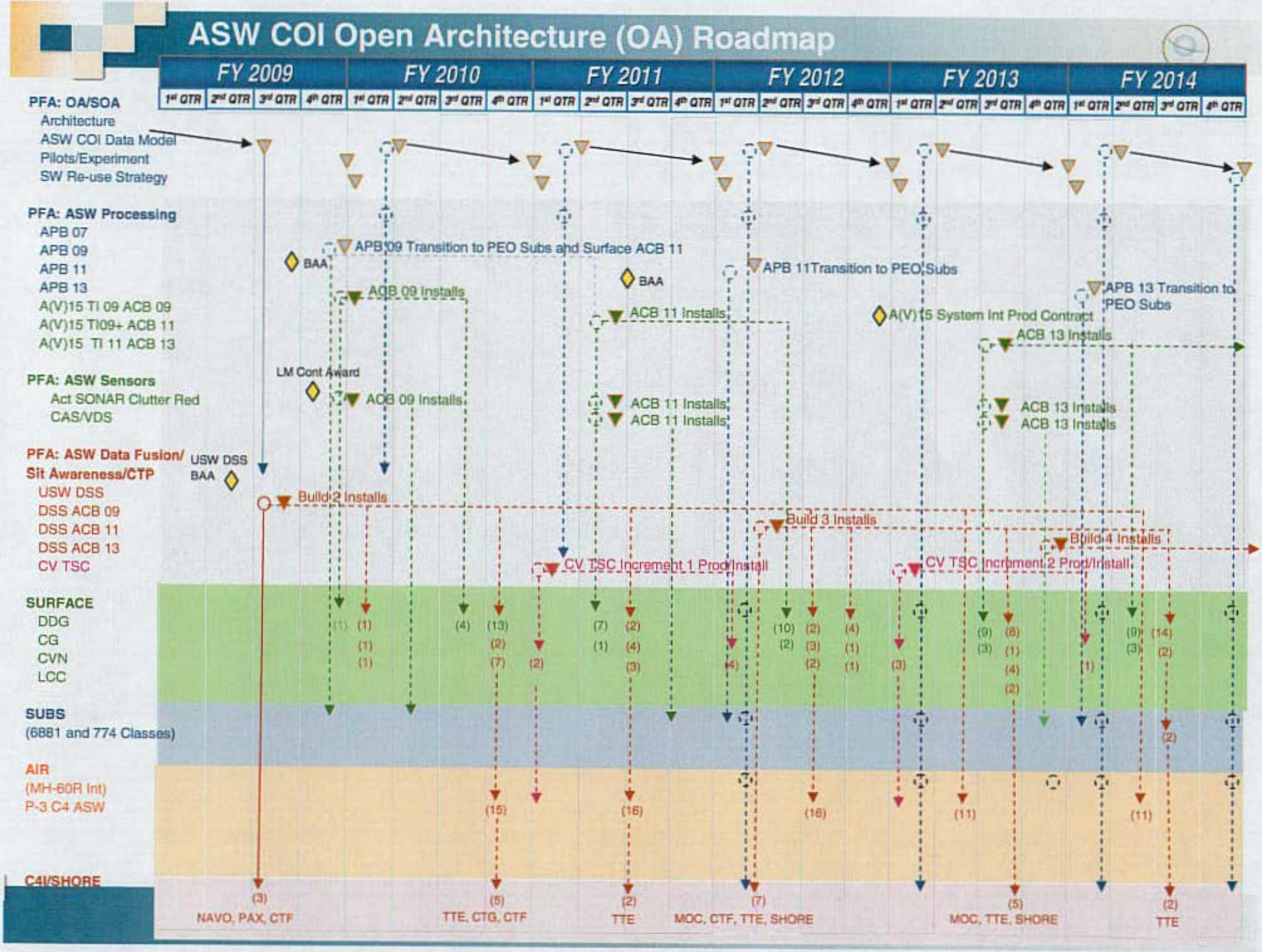
Surface Domain Roadmap



Submarine Domain OA Implementation Roadmap

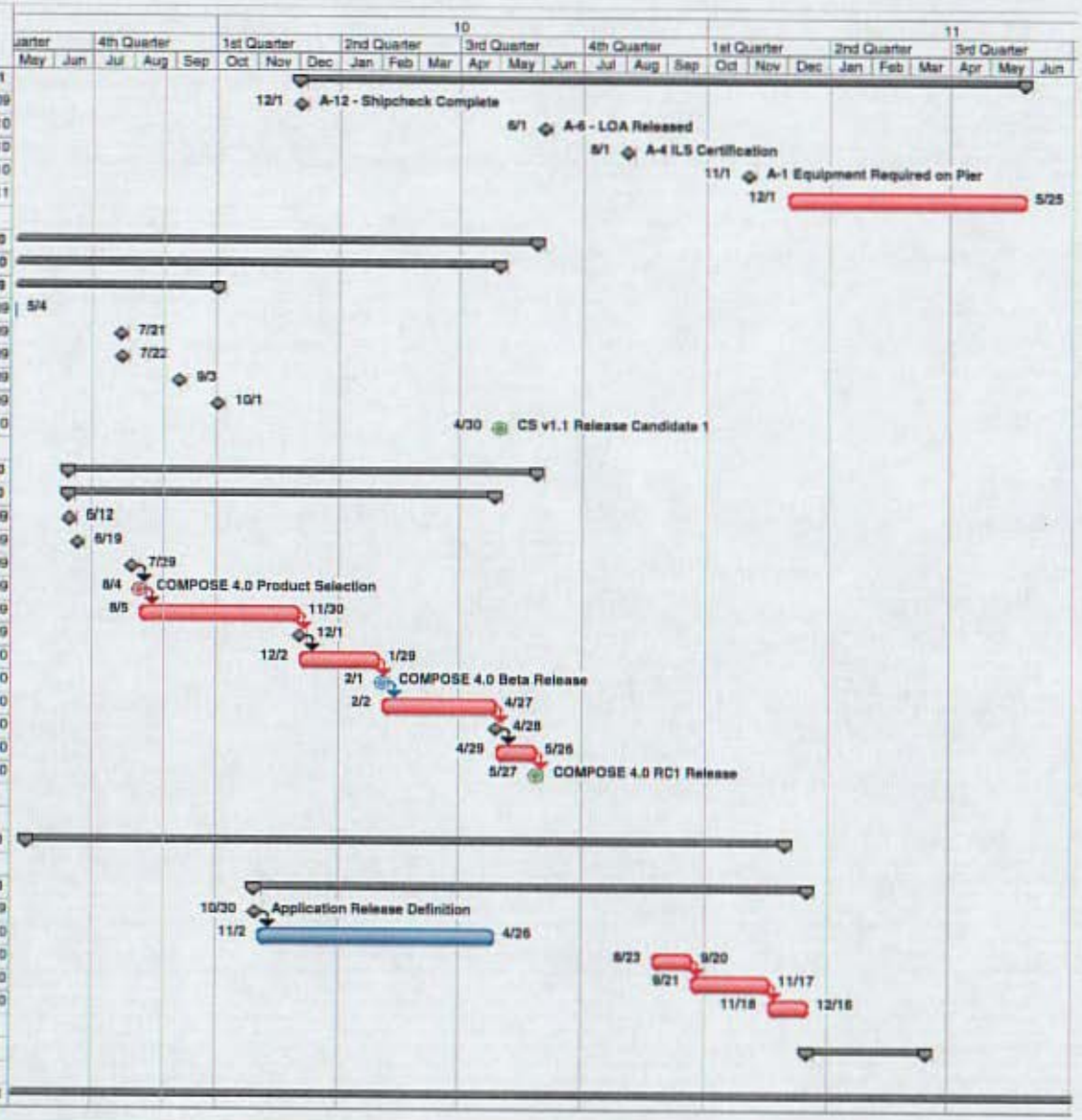


ASW COI Open Architecture (OA) Roadmap

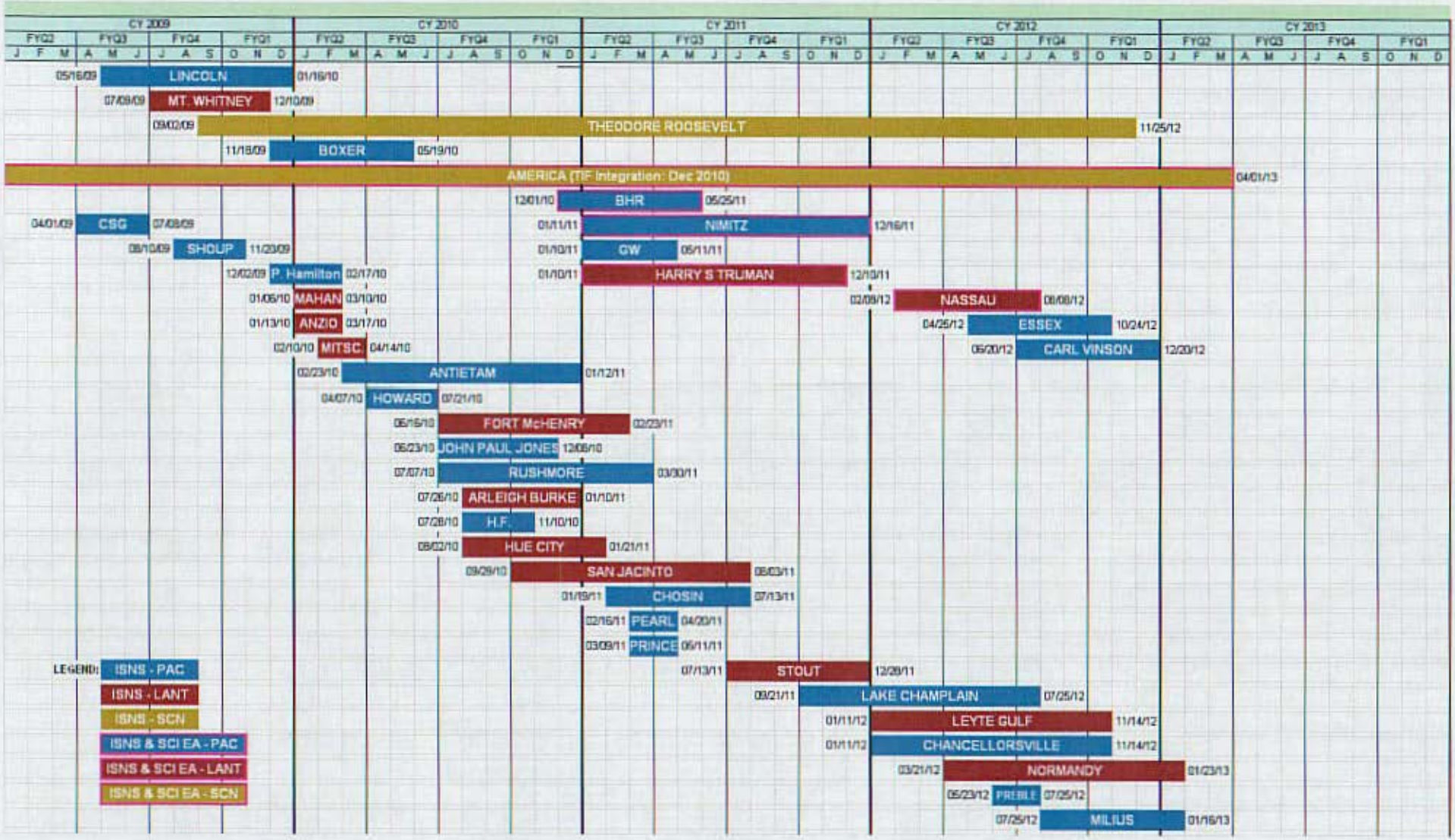


PEO C4I CANES EA FY11 Build Schedule

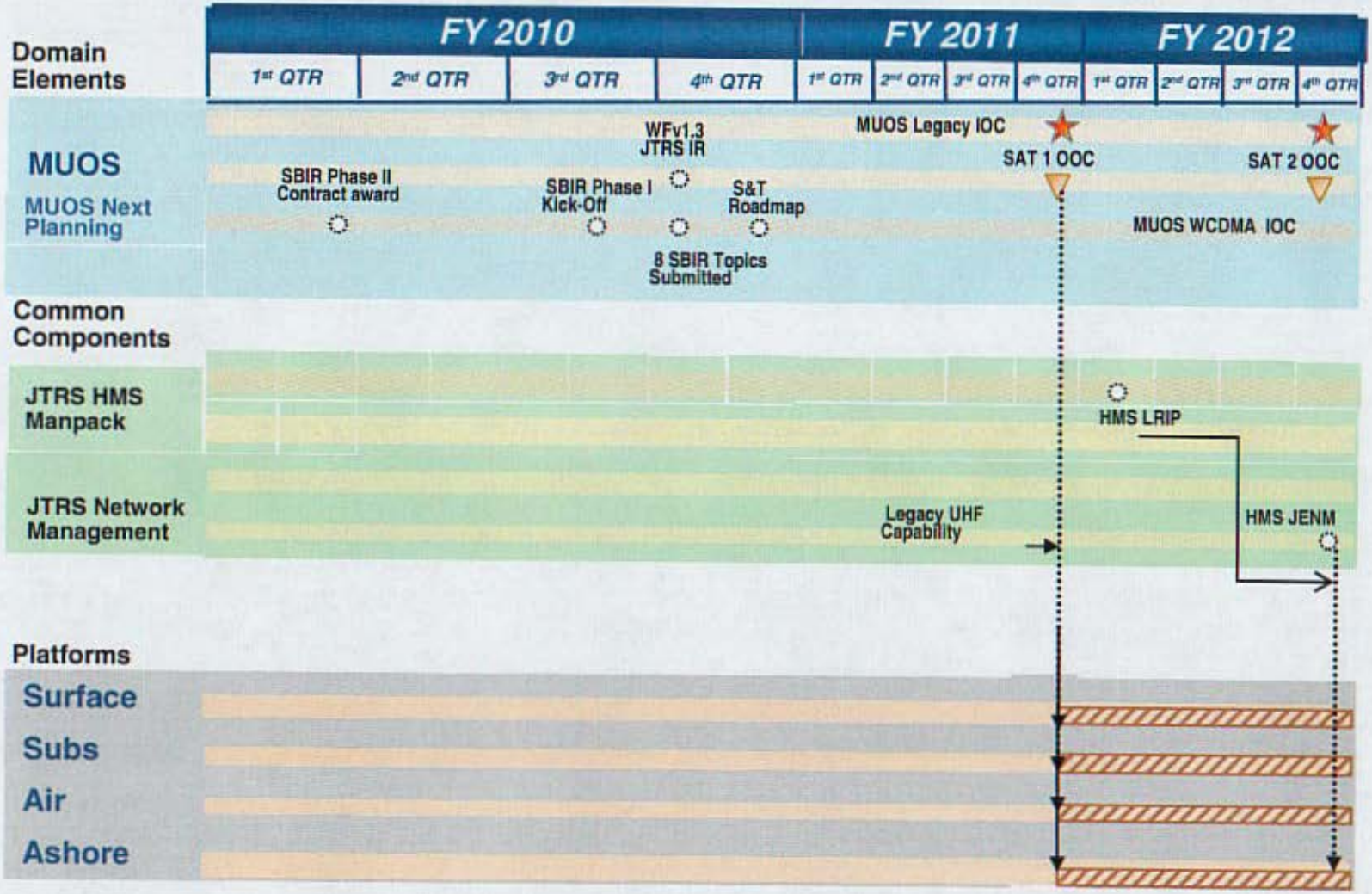
Task Name	Start	Finish
BONHOMME RICHARD Schedule	**Tue 12/1/09**	**Wed 5/25/11**
A-12 - Shipcheck Complete	Tue 12/1/09	Tue 12/1/09
A-6 - LOA Released	Tue 6/1/10	Tue 6/1/10
A-4 ILS Certification	Sun 8/1/10	Sun 8/1/10
A-1 Equipment Required on Pier	Mon 11/1/10	Mon 11/1/10
BONHOMME RICHARD DPMA	Wed 12/1/10	Wed 5/25/11
Baseline Software Development	**Mon 5/4/09**	**Thu 5/27/10**
Core Services v1.1	**Mon 5/4/09**	**Fri 4/30/10**
CS v1.1 Development Milestones	**Mon 5/4/09**	**Thu 10/1/09**
Software Functional Review	Mon 5/4/09	Mon 5/4/09
CS v1.1 Alpha Release	Tue 7/21/09	Tue 7/21/09
CS v1.1 PDR	Wed 7/22/09	Wed 7/22/09
CS v1.1 Beta Release	Thu 9/3/09	Thu 9/3/09
Critical Design Review	Thu 10/1/09	Thu 10/1/09
CS v1.1 Release Candidate 1	Fri 4/30/10	Fri 4/30/10
COMPOSE 4.0 Development	**Fri 6/12/09**	**Thu 5/27/10**
COMPOSE 4.0 Development Milestones	**Fri 6/12/09**	**Tue 4/27/10**
Product Software Rqmts Review (SRR)	Fri 6/12/09	Fri 6/12/09
Approved SRS	Fri 6/19/09	Fri 6/19/09
Windows 7 Release	Wed 7/29/09	Wed 7/29/09
COMPOSE 4.0 Product Selection	Tue 8/4/09	Tue 8/4/09
COMPOSE 4.0 Design	Wed 8/5/09	Mon 11/30/09
Preliminary Product Review	Tue 12/1/09	Tue 12/1/09
Develop COMPOSE 4.0 Beta	Wed 12/2/09	Fri 1/29/10
COMPOSE 4.0 Beta Release	Mon 2/1/10	Mon 2/1/10
Product Development	Tue 2/2/10	Tue 4/27/10
Product Delivery	Wed 4/28/10	Wed 4/28/10
COMPOSE 4.0 Acceptance Testing	Thu 4/29/10	Wed 5/26/10
COMPOSE 4.0 RC1 Release	Thu 5/27/10	Thu 5/27/10
Baseline Infrastructure Development	**Wed 5/13/09**	**Tue 11/30/10**
Application Baseline Implementation Integration & Test	**Fri 10/30/09**	**Thu 12/16/10**
Application Release Definition	Fri 10/30/09	Fri 10/30/09
Solution Determination	Mon 11/2/09	Mon 4/26/10
Application Integration (SoS Integration)	Mon 8/23/10	Mon 9/20/10
SoS SIT	Tue 9/21/10	Wed 11/17/10
E2C Enterprise Test Event	Thu 11/18/10	Thu 12/16/10
Application Baseline Execution	**Fri 12/17/10**	**Mon 3/14/11**
Application Development	**Tue 1/5/09**	**Fri 12/16/11**



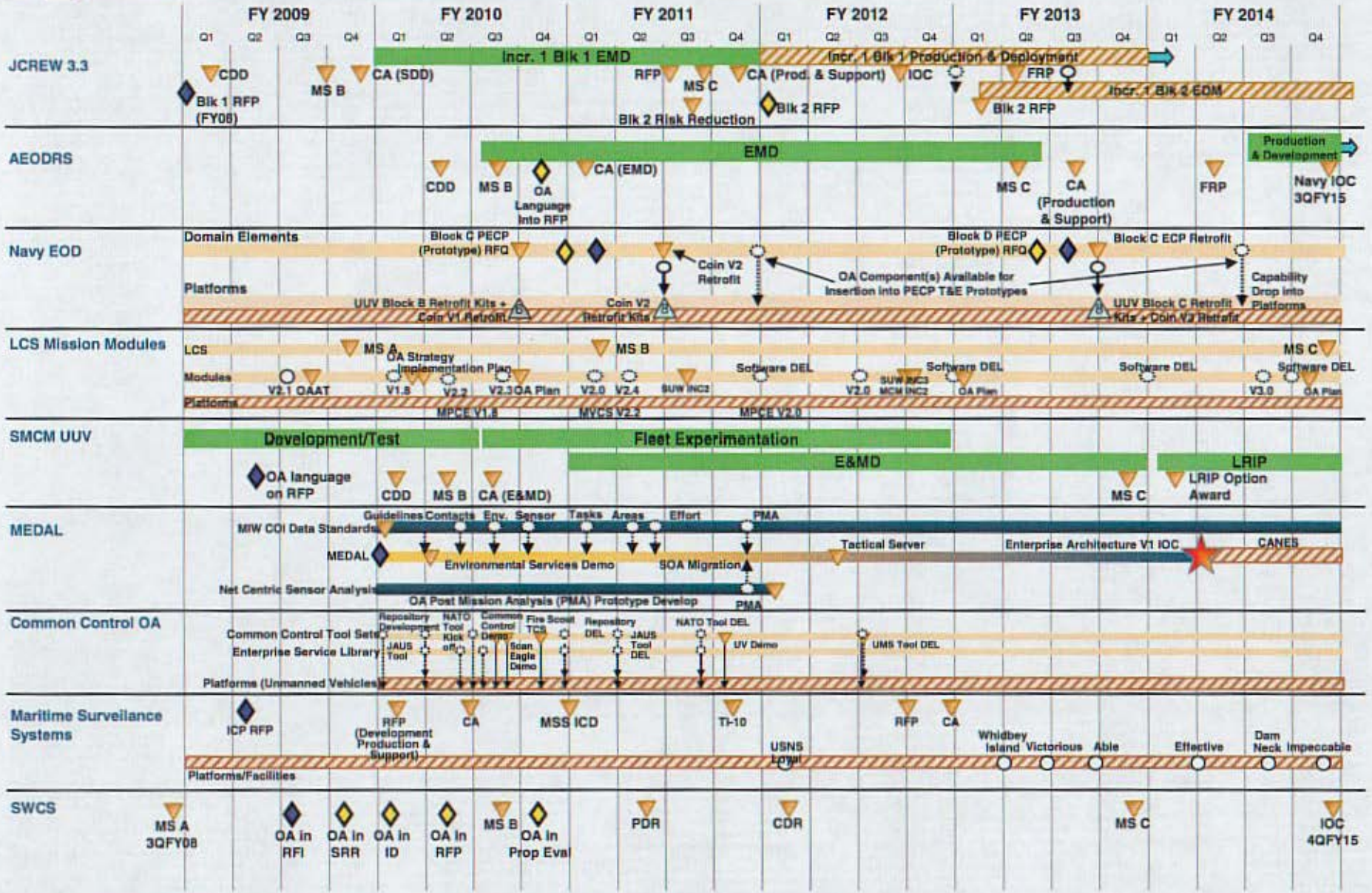
PEO C4I Early Adopter Fielding Plan



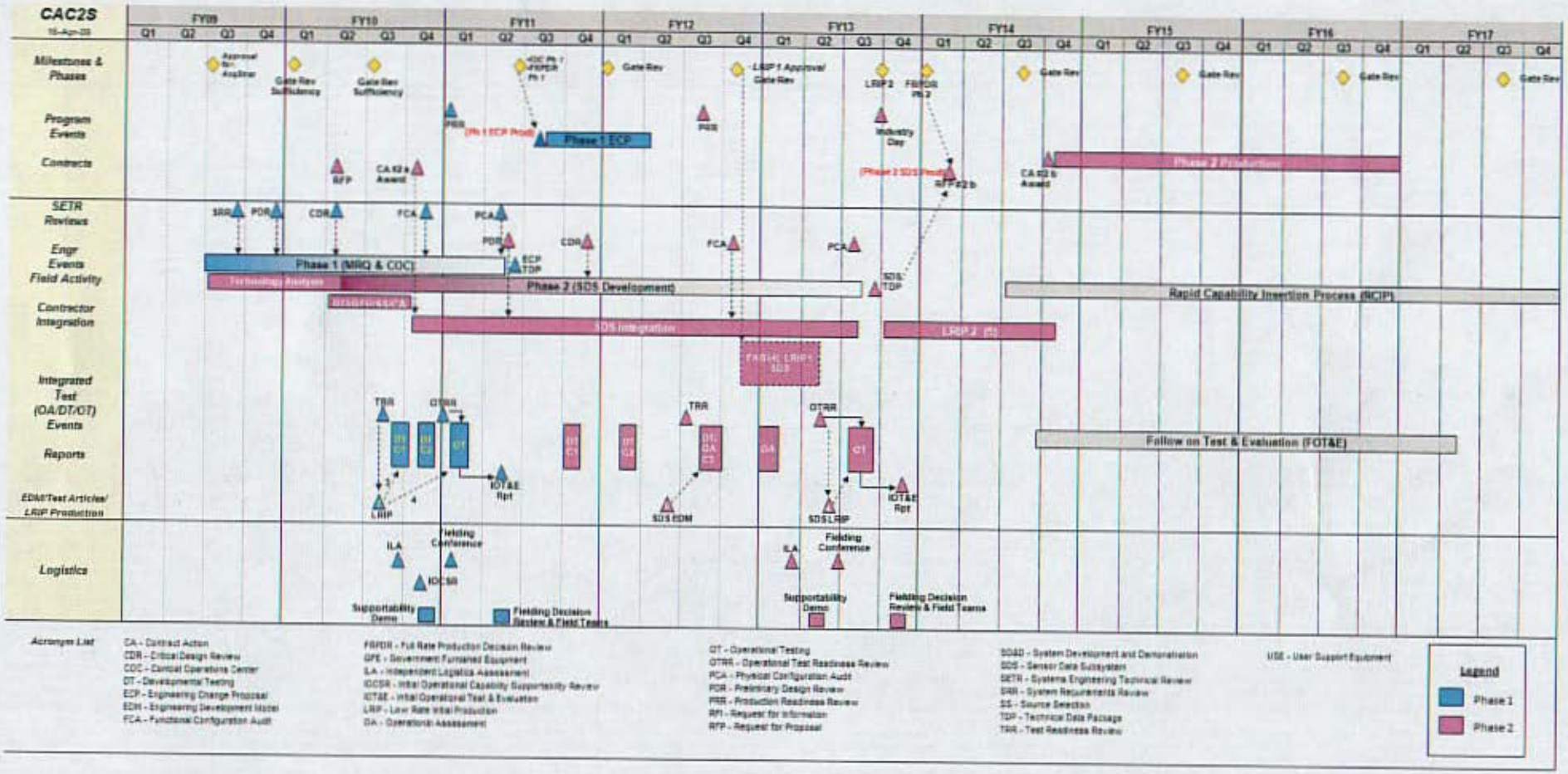
Space Domain OA Implementation Roadmap



PEO LMW Domain Roadmap



USMC Domain CAC2S Roadmap

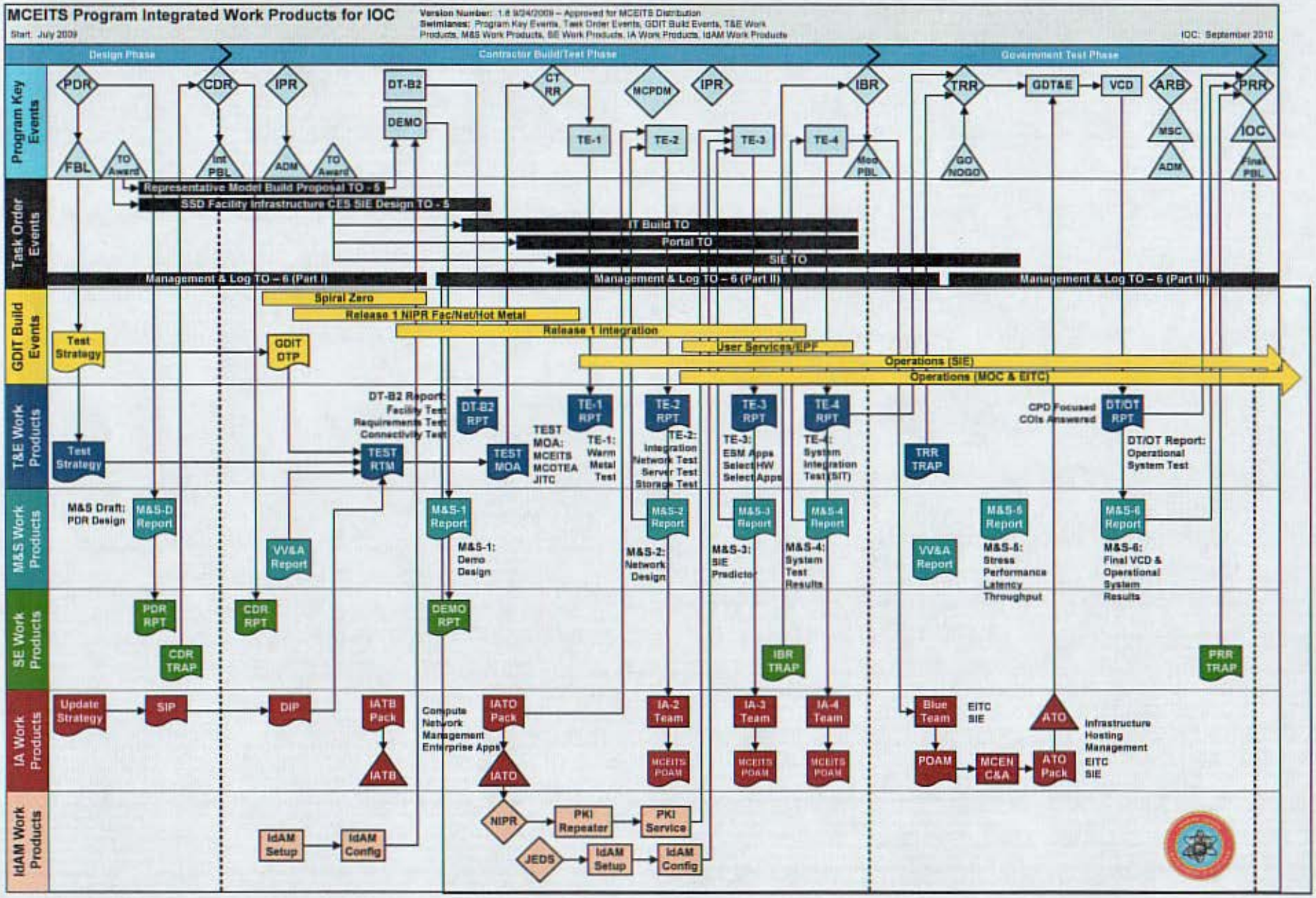


Acronym List

CA - Contract Action
CDR - Critical Design Review
COC - Combat Operations Center
DT - Developmental Testing
ECP - Engineering Change Proposal
EDM - Engineering Development Model
FCA - Functional Configuration Audit
FRPDR - Full Rate Production Decision Review
GFE - Government Furnished Equipment
ILA - Independent Logistics Assessment
IOCSR - Initial Operational Capability Supportability Review
IOT&E - Initial Operational Test & Evaluation
LRIP - Low Rate Initial Production
OA - Operational Assessment
OT - Operational Testing
OTRR - Operational Test Readiness Review
PCA - Physical Configuration Audit
PDR - Preliminary Design Review
PRR - Production Readiness Review
RFI - Request for Information
RFP - Request for Proposal
SDAD - System Development and Demonstration
SDS - Sensor Data Subsystem
SETR - Systems Engineering Technical Review
SRR - System Requirements Review
SS - Source Selection
TDP - Technical Data Package
TRR - Test Readiness Review
USE - User Support Equipment

https://acc.dau.mil/...

USMC Domain MCEITS Roadmap



COORDINATION
Seventh Quarterly Report to Congress on Naval Open Architecture

Organization	Point of Contact	Concur/Non-Concur	Date
OPNAV N6	Mr. Jamey Thayer	Concur as modified*	03 Nov
OPNAV N801	CAPT D. Porcaro	Concur	03 Nov
OPNAV N822	LCDR Gill McCarthy	Concur as modified*	03 Nov
OPNAV N85	Mr. Willie Brown	Concur	03 Nov
OPNAV N86	CDR Timothy Trampenau	Concur as modified*	03 Nov
OPNAV N87	LCDR Brett Levander	Concur	03 Nov
Navy OLA	Shanti Sethi	Concur	03 Nov
FMBE	LCDR Abigail Hutchins	Concur as modified*	03 Nov
NAVAIR	Jamie Jenkins	Concur	03 Nov
NAVSEA	Ms. Sharah Horton	Concur as modified*	03 Nov
SPAWAR	Ms. Denise Wall	Concur as modified*	03 Nov
HQMC	J. Hoagland	Concur	03 Nov
DON CIO	Ms. Annmarie Andrew	Concur as modified*	03 Nov
ASN(RDA) OGC	Mr. John Toner	Concur	
ASN(RDA) Congressional Affairs	Ms. Sandra Petty	Concur as modified*	03 Nov
PEO IWS (OA ET Chair)	Mr. Nick Guertin	Concur	6 Nov

*Comments received during CIMS staffing were reconciled with PEO IWS to the satisfaction of comment originators.

PEO C4I Master Plan. This enterprise road mapping methodology utilizes peer reviews and extensive collaboration in order to maintain up-to-date planning information for the construct of Enterprise Capability Builds (ECBs). An ECB is a collection of related systems designed to deliver a core package focusing on critical functional area(s).

b. Afloat Core Services (ACS) and the CANES Reference Implementation of Core Services (RICS) have been made publicly available via the command's Net-centric Enterprise Solutions for Interoperability (NESI) Collaboration Site (CS).
c. The Navy Integrated Tactical Environmental System (NITES) – Next Program awarded a contract that was not only built around the command's full and open GPR contracting strategy, but also emphasized the opportunity for software reuse via the NESI Collaboration Site (CS). The NITES–Next program will continue to utilize the NESI CS for program design and development activities.
d. Having previously extended discoverability of the design artifacts and software assets by federating NESI and SHARE, the standardized interface mechanism for federated software repositories has evolved to include the ability to index and disclose the project site activities being pursued in the Defense Information Systems Agency (DISA) Forge.mil infrastructure. This federation of software management repositories greatly increases the cross-domain discoverability and opportunity for reuse of program/project artifacts.
e. In the fourth quarter of Fiscal Year 2009, the NESI CS usage statistics were:
   i) Processed 55 new registration applications – there are currently 1,657 active users.
   ii) Posted 53 new assets and 1979 new artifacts.
   iii) A total of 342 assets (9964 artifacts) are currently available for leverage and reuse in the NESI Collaboration Site.

7. Space Domain
   a. PEO Space Systems sponsored a Space System Engineering and Acquisition (SSEA) Chair at the Naval Postgraduate School. An extensive set of suggested thesis topics were vetted with stakeholders and provided to the sponsored chair. These topics will be the springboard for enhanced MUOS and MUOS-Next capabilities that fully embrace NOA principles and include those that assess technical and cost benefits of MUOS Next alternatives and potential embedded technologies.
   b. Four Phase II SBIR contracts which adhere to NOA precepts of collaboration and open interfaces were awarded to small businesses who bring the Navy cutting edge capability from their respective fields. Each award was based upon work that supports the tenets of open architecture. The scope of the SBIRs includes projects to develop an open XML interface from the Naval Simulation System (NSS), support of detailed communication modeling programs such as NETWARS or OPNET, development of an improved MUOS performance model, and creation of a more efficient UHF SATCOM channel reuse planning capability that optimizes

DEPARTMENT OF THE NAVY CONGRESSIONAL REPORT

NDAA 2009, SECTION 908

FISCAL YEAR 2010

BUSINESS TRANSFORMATION UPDATE











Department of the Navy
Congressional Report NDAA 2009, Section 908
Fiscal Year 2010 Business Transformation Update

Introduction

The Department of the Navy (DON) is executing meaningful and sustainable changes in Navy-Marine Corps business management and will continue the drive to improve effectiveness, realize efficiencies, and provide a more straightforward and tighter focus on business transformation. This is the Fiscal Year (FY) 2010 response to the FY 2009 National Defense Authorization Act (NDAA), Section 908 and outlines actions taken and planned by the DON regarding:

- Business Transformation Operations Governance,
- Business Enterprise Architecture (BEA),
- Business Transformation Plan (BTP), and
- Transition Plan (TP).

DON's initial Business Transformation Report published in July 2009, discussed the establishment of the Deputy Under Secretary of the Navy for Business Operations and Transformation [DUSN(BO&T)], as well as the DON approach to accomplish the business transformation initiative requested by the FY 2009 NDAA. In this report, the DON would like to share the progress since submission of the initial report last year.

Office of Business Transformation

The DUSN (BO&T) is in place and is designated as the DON Deputy Chief Management Officer (DCMO) as well as the Director of the Office of Business Transformation. DUSN (BO&T) reports to and implements the guidance and direction of the DON Chief Management Officer (CMO), the Under Secretary of the Navy. The DUSN (BO&T) philosophy is to remain small, and to bring together and integrate existing processes, organizations and capabilities across DON to accomplish critical strategic and corporate business objectives. DUSN (BO&T) is accomplishing this goal by recruiting and developing a cadre of experts in BEA, Continuous Process Improvement (CPI), performance measurement, and governance. By executing this philosophy, the DON will integrate architecture and functional expertise allowing us to coordinate and guide development of our business transformation strategy and plan, BEA, and TP. This team, utilizing effective links between other key organizations within DON and the Department of Defense (DoD), will identify opportunities to shape, streamline, align, and improve core business processes and systems.

Key organizational partnerships have been established between the Under Secretary of the Navy and DUSN (BO&T), and between DUSN (BOA&T) and the Assistant Secretary of the Navy (ASN) Manpower and Reserve Affairs (M&RA), ASN Financial Management and Comptroller (FM&C), ASN Research Development and Acquisition (RD&A), ASN Installations and Environment (I&E), DON Chief Information Officer

(CIO), Headquarters Marine Corps Business Enterprise Office, Office of the Chief of Naval Operations (Codes N1, N2/N6, N4 and N09X), and the Office of the Secretary of Defense and Military Department DCMOs. These partnerships will enable us to coordinate, orchestrate and bring to fruition the transition of high value concepts and initiatives. Additional partnerships will be established as DUSN (BO&T) focuses on new opportunities for business transformation throughout the DON.

DON business operations and transformation efforts include transforming the budget, finance, accounting and human resource operations and are expanded to encompass the five Core Business Missions (CBM) necessary to support the warfighter:

- Human Resources Management (HRM),
- Weapon System Lifecycle Management (WSLM),
- Materiel Supply & Service Management (MSSM),
- Real Property & Installations Lifecycle Management (RPILM), and
- Financial Management (FM).

DON's CBMs align to the DoD CBMs. This alignment ensures that all operational improvements are coordinated with the DoD Business Enterprise Architecture and associated DoD Enterprise Architecture. DUSN (BO&T) is a coordinator and integrator across the business missions and not an additional layer "over" the business missions. It facilitates strategic oversight and management across DON business operations filling voids in existing process and providing links between organizations and processes as required.

The DON recognizes the complex challenge of transforming business operations and understands that a top level governance structure must be a major part of the change management process. Defense business Information Technology (IT) system acquisition is significantly different than weapons system acquisition in that there rarely exists a single owner of an IT system and its requirements. Complex business processes spanning organizational boundaries create multiple diverse customers and sponsors for many IT systems. In addition, overlapping authorities within Goldwater-Nichols, Clinger-Cohen and CMO/DCMO legislation frequently necessitate that the acquisition, CIO and CMO/DCMO communities work together as an integrated team to achieve meaningful progress in business transformation. To enable the making of executive decisions that allow effective governance of business transformation, the DON Business Transformation Council (BTC), chaired by the Under Secretary of the Navy, has been re-invigorated. The BTC is the senior level DON forum in which business transformation efforts that cross organizational and/or functional boundaries are assessed, approved and governed.

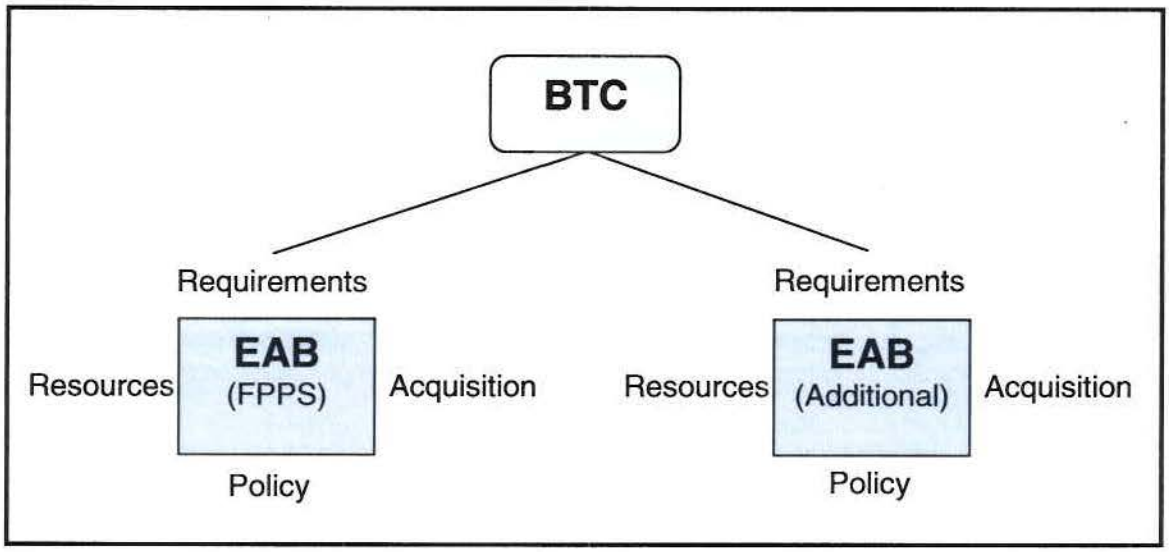
The BTC is the DON's forum to instill an enterprise view, implement actions and draw together disparate stakeholders to fully engage in decision making processes. The senior level membership of the BTC provides the opportunity to strategically assess corporate level business initiatives such as the Navy Future Pay and Personnel Solution (FPPS) and Navy Enterprise Resource Planning (ERP) as well as to evaluate plans and actions for

enterprise wide initiatives such as In-Sourcing. The BTC also ensures that business operations information and decisions are strategically communicated and corporately executed throughout the DON. Through the BTC, the Under Secretary intends to:

- Provide enterprise leadership that creates a coordinated and strategic approach to corporate business processes,
- Inculcate an enterprise culture that promotes efficiency and creates strategic benefits across the DON,
- Empower existing enterprise organizations and processes thus avoiding adding additional management layers, and
- Codify enduring governance structures and processes.

With its broad authority, the BTC is chartered to establish Executive Advisory Boards (EAB) to provide a lower level governance structure that brings together requirements, resources, policy, and acquisition leaders to vet issues, identify options, and implement BTC decisions for complex, high priority business initiatives.

As illustrated in Figure 1, An EAB exists for the FPPS. Additional EABs will be chartered to provide necessary governance for high priority issues as the BTC matures and additional issues are identified.



BTC/EAB Relationship - Figure 1

DON Business Enterprise Architecture

Like many organizations, the current architecture of the DON's business systems is a result of years of bottom up development of systems with varying degrees of strategic oversight. The Secretary and Under Secretary of the Navy fully understand Congress' concerns and the genesis of the CMO laws. The DON shares your concerns and is whole heartedly committed to addressing them. One of the DON's biggest challenges will be

transforming the current BEA into an efficient and effective architecture. While this is a top DON priority, it will take time and iterations to make this happen.

The DON BEA will describe the business mission area processes, information, and activities within the DON enterprise architecture. It will encompass the DON business transformation priorities, articulate the business capabilities required to support those priorities, and drive the combinations of enterprise systems and initiatives that enable those capabilities. Still in a nascent stage, the DON BEA will be iteratively developed in an incremental and systematic manner with an enterprise-level approach. Throughout the development process the DON will ensure proper alignment with the DoD BEA. The DON BEA is intended to:

1. Define and integrate the business operations processes executed by the DON and the information needed to execute these processes,
2. Support DON leadership in understanding where the greatest opportunities are to improve business operations,
3. Inform critical decision making processes such as the Joint Capabilities Integration and Development System; the Defense Acquisition System; and Planning, Programming, Budgeting and Execution (PPBE) system,
4. Support alignment of activities, processes, systems, and data to other DoD components and government agencies,
5. Allow DON decision makers to mitigate cost, schedule, and technical risks associated with the development of business systems,
6. Assure the ability to more effectively and efficiently upgrade business IT systems and processes to meet future needs,
7. Ensure that IT investment processes are in compliance with NDAA, Goldwater-Nichols and Clinger-Cohen Act requirements, and support Office of Management and Budget policy,
8. Optimize compatibility, flexibility, interoperability, and architectural compliance among DON systems.

A major challenge in developing the DON BEA will be in prioritizing areas of emphasis. The DON CMO and DCMO will focus on producing architectural products for the Department's highest priority business operations, first. The DON BEA development process will be an iterative process that prescribes how new business transformations are defined, resourced and executed.

Priorities for architecture development will be to focus on business operations that are problematic, complex, the most opportunistic (i.e. new starts), and are aligned with DOD Strategic Management Plan priorities. The DON anticipates developing detailed architectural products for these priority business operations. This approach will help avoid lengthy and expensive development efforts that do not immediately generate value commensurate with cost. Improvement efforts will be focused by applying information generated from DON performance measurement activities to inform prioritization.

In a given focus area, development of the "as-is" component of the DON BEA, or documenting the way in which business operations are conducted will be the DON starting point. The primary emphasis will be on depicting the processes that support specific activities and the ways in which they could be altered to bring more efficiency to DON business operations. The DON BEA governance processes, that will drive decisions to alter and improve these "as-is" processes, will leverage existing forums and processes in the DON CIO and DUSN (BO&T) organizations. These decisions to improve business operations processes will be reflected in a "to-be" component of the DON BEA.

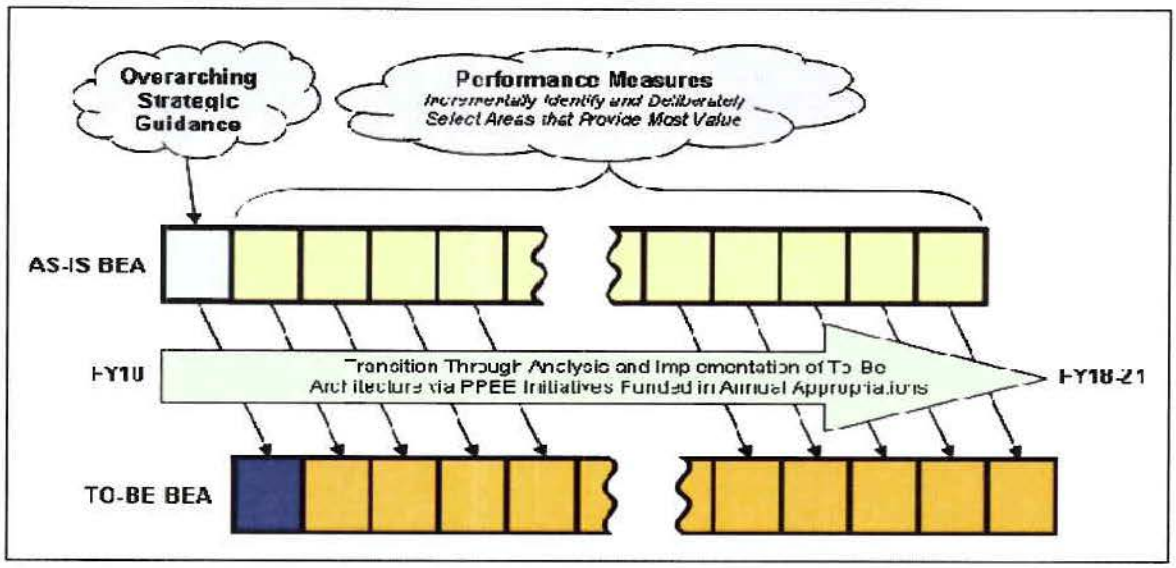
Producing the DON BEA will be challenging and require time and resources to complete. The varied DoD and DON requirements and policies will dictate crafting an architecture that can be interpreted by multiple audiences and in the end, will take an iterative, team approach to produce a successful DON BEA.

Business Transformation Plan and Approach

Our BTP, now in development, will be the strategic, connected set of activities designed to establish an improved capability to define and execute business transformation initiatives. The vision for the BTP is to take a strategic approach to DON transformation planning that incorporates the following six attributes:

1. Governance
2. Performance Measures
3. DON "As-Is" BEA
4. CPI
5. PPBE
6. DON "To-Be" BEA

The business transformation process will be implemented incrementally over several budget cycles. This concept is illustrated in Figure 2 below:



BTP Plan and Approach - Figure 2

1. Governance: Business transformation governance will initially focus on those business operations and processes that provide the highest potential benefit and/or the most significant reduction in risk. Therefore, the ability to quickly and clearly reach governance decisions is a key component of the DON business transformation strategy. These decisions will be made by the BTC at the highest level, by EABs and in accordance with the DON IT Portfolio Management process at successively lower levels as appropriate. The DON objective is to codify a strategic governance process that assures an efficient and effective corporate approach to business transformation while assuring that bottom up, innovative business transformation, that is so important, is encouraged to flourish in a manner aligned with the DON's objectives.

2. Performance Measures: Performance measures will be established to assess business operations performance and weaknesses. These measures will be both retrospective and predictive to:

    - Identify and provide an understanding of where best to focus business transformation initiatives so they afford the CMO and DCMO the largest opportunity for improvement, and
    - Understand the actual impact of transformation initiatives once implemented.

    At present, performance measures are being developed in support of the Navy Enterprise Resource Planning Senior Investment Board and DUSN (BO&T) performance management activities. The DON fully recognizes the challenge of developing meaningful measures that produce actionable data.

3. DON "As-Is" BEA: The DON "as-is" BEA component will be developed beginning with a high level, overarching standard framework encompassing the

entire DON business operations domain. Based on insight gleaned from the analysis of performance measures, the DON "as-is" BEA component will be developed in greater detail in areas of DON business operations that are the most problematic or offer the greatest potential for high payoff improvements to business operations. Because the DON "as-is" BEA approach will focus first on business operations presenting the highest potential for benefits, this approach will avoid spending too much time and funding to fully characterize the entire DON "as-is" BEA prior to initiating business operations improvements.

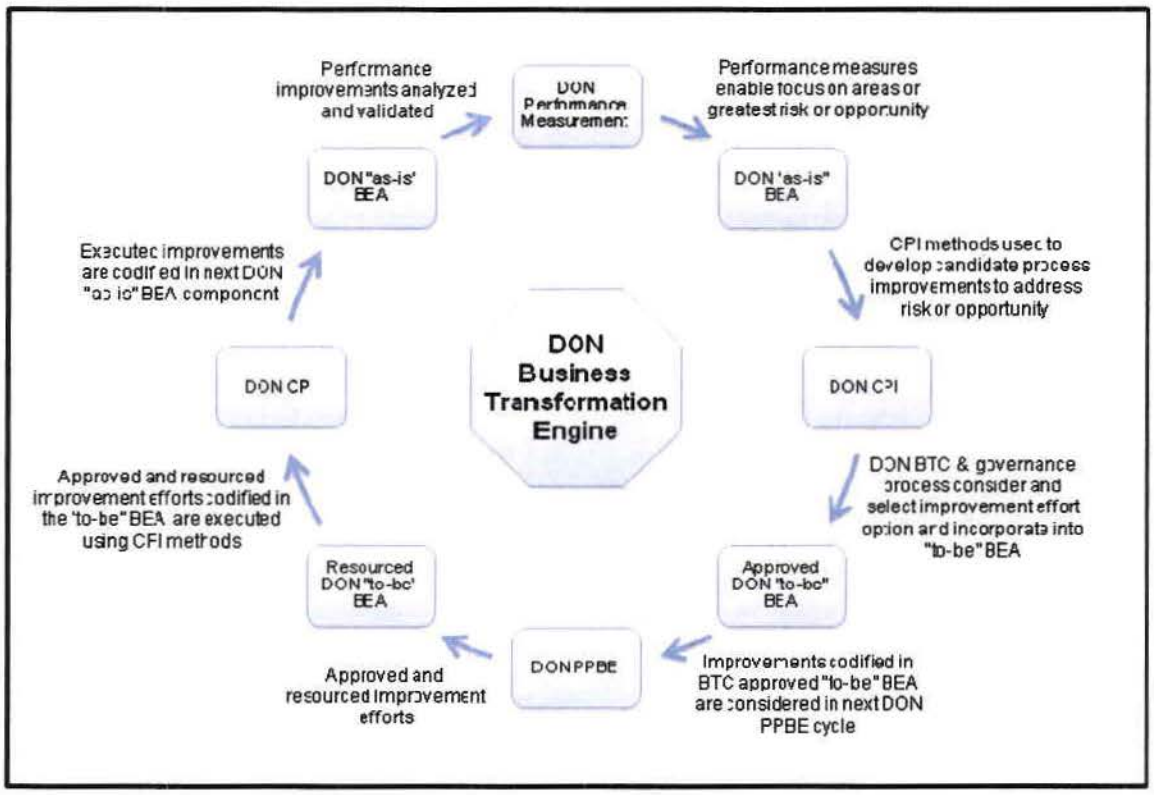
4. Continuous Process Improvement (CPI): CPI is the DON's primary method for implementing process improvement across the enterprise. DON enterprise responsibility for CPI has been integrated into the DUSN (BO&T) organization. Implementing meaningful change in any business operation carries a level of risk determined by the scale and complexity of the change. By applying the industry/DoD proven practices of Lean Six Sigma, CPI increases our ability to successfully improve processes. These defined and repeatable methods increase the probability of generating highly desirable process improvement outcomes while minimizing the risk of failure when making changes to business processes.

5. Planning, Programming, Budgeting & Execution: In order to achieve executable business transformation results that are sustainable and permanent, business transformation initiatives must be a part of the overall set of DON programmatic investments and budgets generated by the PPBE process. Once Governance decisions have been made and changes identified to transform one or more increments of the BEA from the "as-is" to the "to-be" state, the PPBE process will be used to budget DON resources to make the change(s). Having business transformation initiatives that are a part of the overall set of programmatic investments and budgets is a critical element required to make business operations improvements executable, permanent and sustainable.

6. DON "To-Be" BEA: The DON "to-be" BEA leverages the DOD standard architecture framework, the analysis codified in both the DON "as-is" BEA component and CPI activities to reflect potential improvements to DON business operations. In this manifestation, the DON "to-be" BEA component is a critical tool to aid the BTC in understanding potential improvements to business operations and reaching decisions to improve these operations. The DON "to-be" BEA component is an evolving architecture that will be updated on a regular basis when business transformation efforts are resourced by a DoD Appropriations Act. The DON "to-be" BEA component codifies decisions made by DON business transformation governance bodies that will be implemented in business operations.

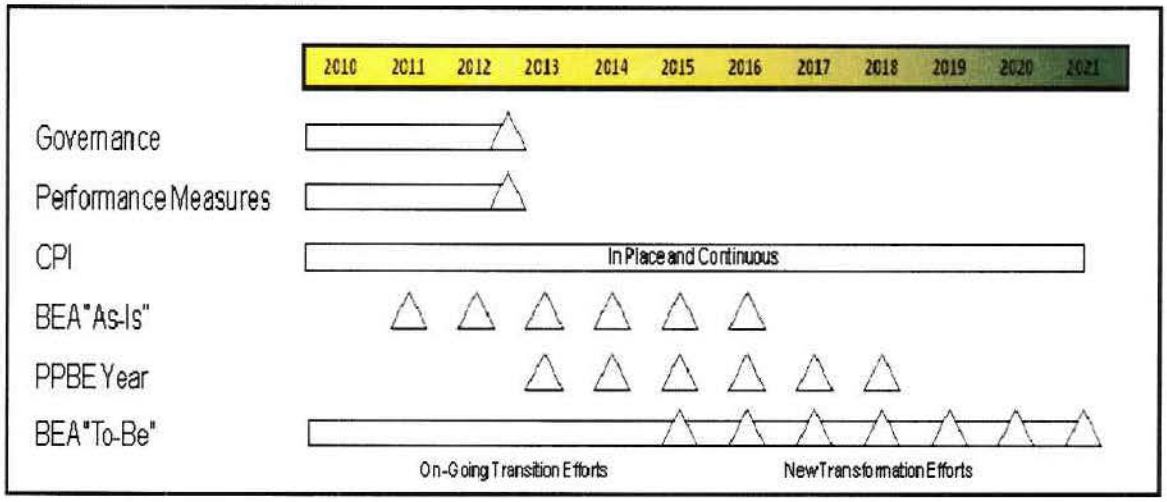
Once an approved and resourced business operations transformation effort is completed, the implemented business operations become a part of the newest "as-is" component of the DON BEA. DON performance measurement activities validate the extent of beneficial effect generated by the effort. This feedback loop illustrated in Figure 3

describes how the "as-is" DON BEA component, performance measurement, CPI, PPBE and the "to-be" DON BEA component function as the DON' business transformation engine created through the DON BTP.



DON Business Transformation Engine - Figure 3

The DON will develop and implement planning to transform its ability to improve business operations. This incremental planning approach will move the DON from a model in which business operations and improvements are often managed independently and are sometimes not aligned with each other, to an environment where projects are managed collectively, are aligned to yield economies of scope and scale, and are optimized to support corporate goals. Figure 4 illustrates the incremental planning approach and provides timelines for the BTP attributes discussed above:



BTP Timeline - Figure 4

Transition Plan

The DON TP is the essential component of our business transformation strategy that details the business operations portfolio of systems. It is the roadmap, within the BTP, that describes systems, schedules, and resources that guide transition to the "to-be" business capabilities. The DON TP:

- Is the net result of the last PPBE cycle and reflects resourcing approved in the latest DOD Appropriation Act,
- Contains transformation initiatives that align with the DOD Strategic Management Plan priorities,
- Provides a baseline of systems for enterprise decision making,
- Implements "as-is" organizational processes,
- Serves as an authoritative source for identifying approved portfolio changes,
- Helps align business system budget and execution, and
- Provides visibility into the evolving "to-be" BEA.

At present, this transition plan is resident within the DoD Information Technology Portfolio Repository – DON for systems data, and the Naval Information Technology Exhibits/Standard Reporting for associated budget information. The DON goal is to develop a descriptive TP format that provides corporate visibility into the "as-is" and "to-be" states of the business operations portfolio of systems.

Ongoing Transitional Efforts

While implementing its BTP and approach, the CMO and DCMO are focused on several initiatives that are improving business operations throughout the CBMs. The following is a brief summary of some of the DON's ongoing initiatives.

Human Resource Management

The HRM Mission Area (MA) is directed through the ASN (M&RA). They are establishing a resourced, executable, measurable plan for transitioning the Manpower, Personnel, Training, and Education (MPTE) IT portfolio through the coordinated efforts of the MPTE business owners, resource sponsors, requirements owners, functional leads, and enterprise IT acquisition providers. They are improving the hiring process through the Recruitment Common Business Process to better define hiring process roles and streamline the overall hiring process. Another DON HRM initiative is the Career Management System / Interactive Detailing which is a web-based tool that allows Sailors to identify and apply for jobs for their next tour. The goal is to modernize the detailing process while reducing the labor burden of the current process and providing much needed transparency.

Real Property and Installations Lifecycle Management

The RPILM MA is directed through the ASN (I&E), with execution responsibility delegated to two aligned entities: Commander, Navy Installations Command for the Navy; and Naval Facilities Engineering Command for both Navy and Marine Corps. The RPILM initiatives include the Real Property Inventory Requirements which aims to achieve real property efficiencies by standardizing data, systems and processes. When complete, DoD will have an authoritative source for location and near real-time access to an accurate inventory of worldwide assets. Another initiative is the Real Property Construction in Progress Requirements that provides a standard process to calculate, record and report the value of Construction In Progress. This will improve visibility and access to Construction In Progress information, ensure that sufficient documentation is available at the transaction level to support Construction In Progress values and enable reliable and consistent reporting of construction, compliant with federal financial management requirements.

Weapons Systems Lifecycle Management

The WSLM process includes concept development, technology development, engineering and manufacturing development, production, operational support and disposal. The Joint Staff, Navy and Marine Corps headquarters are responsible for concept development, and after program initiation, responsibility shifts to the ASN (RD&A). One of the WSLM initiatives is the Cross-Systems Command and Provider Enterprise initiative which consists of a governance forum, called the Provider Enterprise, to manage the changes associated with the WSLM process. This forum meets quarterly to review progress with selected high priority initiatives, discuss lessons learned and barriers, identify actions necessary to accelerate progress, and issue tasking to individual organizations. It is co-chaired by the Vice Chief of Naval Operations and ASN (RD&A) and its membership includes the DON DCMO.

Financial Management

The FM MA is directed through the ASN (FM&C). One of their initiatives is the pursuit of audit readiness for the Statement of Budgetary Resources (SBR). This is one of the major federal government financial statements and the Defense Comptroller has made auditability of the SBR a key initiative toward a clean audit opinion for the DoD. DON's strategy is to pursue its audit readiness efforts in business segments which most affect the SBR (Civilian and Military Pay, combined with Contract/Vendor Pay, comprise over 80% of the total) while doing parallel analysis on SBR lines (tracing SBR entries back to individual financial transactions) to determine their auditability. The Marine Corps has asserted audit readiness on its SBR and is undergoing an audit by an independent public audit firm in FY2010. Another initiative is to prove Existence and Completeness on major military assets in FY2010. This initiative will drive greater standardization of financial systems through Navy ERP and will prove that DON has effective controls over these assets, from procurement, through deployment, use, and eventual disposal.

Materiel Supply and Service Management

The DON MSSM MA is directed through the ASN (RD&A). One of their initiatives is the Logistics Modernization, which is the largest coordinated and cross-organizational transformation of logistics in Marine Corps history. This effort is focused on enhancing the lethality and extending the operational reach of the Marine Air Ground Task Force through expeditionary logistics enhancements integrated across three dimensions: people, processes, and enabling technologies. In another MSSM initiative, the Marine Corps' Total Lifecycle Management, Integrated Process Team has completed formal cradle-to-grave value stream mapping and assessment. This initiative provides an overarching perspective and will assure that everyone's efforts are aligned to the Marine Corps' strategic goal. Another initiative is the Navy ERP program which will modernize business practices, streamline organizations, improve quality, reduce costs, and improve response to the warfighter. The capabilities that the Navy ERP program will provide are improved acquisition management, integrated financial and inventory management, and improved operating force logistics. The implementation of Navy ERP will also result in reduced costs of legacy systems through retirements and migrations. Navy ERP is currently deployed to 38,000 users at the Naval Air Systems Command, Naval Supply Systems Command, and Space and Naval Warfare Systems Command.

Summary

Since submittal of the initial Business Transformation Report in July 2009, the Secretary and Under Secretary of the Navy have assembled the majority of their leadership team. The Under Secretary of the Navy, the CMO, has assembled a high caliber core team to execute business transformation in the DON. The DON recognizes that business transformation will be challenging and difficult. It is something that the DON must do correctly and with a sense of urgency. The DON is approaching this mission enthusiastically and as an opportunity to establish a business enterprise culture of innovation, efficiency and effectiveness that matches our warfighting prowess. As the

CMO, the Under Secretary is well underway in pulling together the many communities that are stakeholders in the DON's diverse business operations portfolio and making positive changes. The DON is taking positive steps toward establishment of business governance structures highlighted by the re-invigorated BTC. The DON's goal continues to be to produce the business transformation we need to efficiently and effectively support the world's most powerful Navy and Marine Corps, the Sailors and Marines and their families, and the Nation.

Acronym
ASN – Assistant Secretary of the Navy
BEA – Business Enterprise Architecture
BTC – Business Transformation Council
BTP – Business Transformation Plan
CBM – Core Business Mission
CIO – Chief Information Officer
CIP – Construction in Progress
CMO – Chief Management Officer
CPI – Continuous Process Improvement
DCMO – Deputy Chief Management Officer
DoD – Department of Defense
DON – Department of the Navy
DUSN(BO&T) – Deputy Under Secretary of the Navy for Business Operations and Transformation
EAB – Executive Advisory Board
ERP – Enterprise Resource Planning
FM – Financial Management
FM&C – Financial Management and Comptroller
FPPS – Future Pay and Personnel Solution
FY – Fiscal Year
HRM – Human Resources Management
I&E – Installations and Environment
IT – Information Technology
MA – Mission Area
M&RA – Manpower and Reserve Affairs
MPTE – Manpower, Training and Education
MSSM – Material Supply and Service Management
NDAA – National Defense Authorization Act
PPBE – Planning, Programming, Budgeting and Execution
RD&A – Research, Development and Acquisition
RPILM – Real Property and Installations Lifecycle Management
SBR – Statement of Budgetary Resources
TP – Transition Plan
WSLM – Weapons System Lifecycle Management

THE UNDER SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 26, 2010

The Honorable Ike Skelton
Chairman, Committee on Armed Services
House of Representatives
Washington, DC 20510-6035

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2009, section 908 Business Transformation Initiatives for the Military Departments directed the Department of the Navy to report on actions taken and actions planned regarding:

- Business Transformation Operations Governance
- Developing and implementing a Business Transformation Plan
- Developing and implementing a Business Enterprise Architecture
- Developing and implementing a Transition Plan

The Department recognizes that business transformation will be challenging and difficult. We are approaching this mission enthusiastically and as an opportunity to establish a business enterprise culture of innovation, efficiency, and effectiveness that matches our warfighting prowess. The enclosed report describes our business transformation efforts.

A similar letter has been sent to Chairman Levin, Dicks and Inouye. If I can be of further assistance, please let me know.

Sincerely,

Robert O. Work

Enclosure:
As Stated

Copy to:
The Honorable Howard P. "Buck" McKeon
Ranking Minority Member

THE UNDER SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 26, 2010

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2009, section 908 Business Transformation Initiatives for the Military Departments directed the Department of the Navy to report on actions taken and actions planned regarding:

- Business Transformation Operations Governance
- Developing and implementing a Business Transformation Plan
- Developing and implementing a Business Enterprise Architecture
- Developing and implementing a Transition Plan

The Department recognizes that business transformation will be challenging and difficult. We are approaching this mission enthusiastically and as an opportunity to establish a business enterprise culture of innovation, efficiency, and effectiveness that matches our warfighting prowess. The enclosed report describes our business transformation efforts.

A similar letter has been sent to Chairman Skelton, Dicks and Inouye. If I can be of further assistance, please let me know.

Sincerely,

Robert O. Work

Enclosure:
As Stated

Copy to:
The Honorable John McCain
Ranking Minority Member

THE UNDER SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 26, 2010

The Honorable Norman Dicks
Acting Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20510-6018

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2009, section 908 Business Transformation Initiatives for the Military Departments directed the Department of the Navy to report on actions taken and actions planned regarding:

- Business Transformation Operations Governance
- Developing and implementing a Business Transformation Plan
- Developing and implementing a Business Enterprise Architecture
- Developing and implementing a Transition Plan

The Department recognizes that business transformation will be challenging and difficult. We are approaching this mission enthusiastically and as an opportunity to establish a business enterprise culture of innovation, efficiency, and effectiveness that matches our warfighting prowess. The enclosed report describes our business transformation efforts.

A similar letter has been sent to Chairman Skelton, Levin and Inouye. If I can be of further assistance, please let me know.

Sincerely,

Robert O. Work

Enclosure:
As Stated

Copy to:
The Honorable C.W. Bill Young
Ranking Minority Member

THE UNDER SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

February 26, 2010

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2009, section 908 Business Transformation Initiatives for the Military Departments directed the Department of the Navy to report on actions taken and actions planned regarding:

- Business Transformation Operations Governance
- Developing and implementing a Business Transformation Plan
- Developing and implementing a Business Enterprise Architecture
- Developing and implementing a Transition Plan

The Department recognizes that business transformation will be challenging and difficult. We are approaching this mission enthusiastically and as an opportunity to establish a business enterprise culture of innovation, efficiency, and effectiveness that matches our warfighting prowess. The enclosed report describes our business transformation efforts.

A similar letter has been sent to Chairman Skelton, Levin and Dicks. If I can be of further assistance, please let me know.

Sincerely,

Robert O. Work

Enclosure:
As Stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY THE NAVY
(FINANCIAL MANAGEMENT AND COMPTROLLER)
1000 NAVY PENTAGON
WASHINGTON, DC 20350-1000

ACTION MEMO

May 8, 2009

FOR: SECRETARY OF THE NAVY

FROM: John W. McNair, Acting Assistant Secretary of the Navy (FM&C) 5/11/09

SUBJECT: Prioritization of Funds within Navy Mission Operations, Ship Maintenance, Combat Support Forces, and Weapons System Support

Section 361 of the John Warner FY 2007 National Defense Authorization Act (NDAA) directs the Secretary of Defense (SECDEF) to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2010 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. Additionally, the NDAA directs the Secretary of the Navy to submit to the congressional defense committees a report setting forth the progress toward ensuring sufficient funding in support of these requirements.

- TAB (A) contains letters for your signature, to each of the congressional defense committees, certifying that Navy has budgeted and programmed sufficient funding in FY 2010 to meet its baseline mission requirements for deployed and non-deployed ship steaming days per quarter, and projected ship and air depot maintenance requirements. The letter will also forward a report containing assessments of the FY 2010 ship steaming days per quarter for deployed and non-deployed ship operations, and projected ship and air depot maintenance programs, as prescribed in NDAA Section 361(d) (1). Information contained in the reports supports the required certification.

- TAB (B) is the FY 2010 Annual report to be forwarded with the letters contained in TAB (A).

RECOMMENDATION: SECNAV sign letters at TAB (A).

COORDINATION: TAB C

Attachments:
As stated

Prepared by: Steven P. Corbin, FMB-12, 703-697-0434

14MAY09
AASN
RELEASE

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2010 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2010 to meet mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2010 annual report is enclosed.

Please let me know if I can be of any further assistance. A similar letter is also being provided to Chairman Skelton, Chairman Inouye and Chairman Murtha.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable John McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2010 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2010 to meet mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2010 annual report is enclosed.

Please let me know if I can be of any further assistance. A similar letter is also being provided to Chairman Levin, Chairman Inouye and Chairman Murtha.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2010 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2010 to meet mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected depot maintenance requirements for ship and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2010 annual report is enclosed.

Please let me know if I can be of any further assistance. A similar letter is also being provided to Chairman Levin, Chairman Skelton and Chairman Inouye.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

Section 361 of the John Warner FY 2007 National Defense Authorization Act directs the Secretary of Defense to submit to the congressional defense committees a written certification that the Navy has budgeted and programmed funding to fully meet the requirements in FY 2010 for: (1) ship steaming days per quarter for deployed and non-deployed ship operations; and (2) projected depot maintenance for ships and aircraft. This responsibility has been delegated to the Secretary of the Navy.

Accordingly, I certify that the Navy has budgeted and programmed sufficient funding in FY 2010 to meet mission requirements in the areas of ship steaming days per quarter for deployed and non-deployed ship operations, and projected requirements for ship and aircraft depot maintenance.

Section 361 also directs me to submit to the congressional defense committees an annual report that sets forth the progress toward budgeting resources to sustain required readiness levels in support of the national military strategy without significant risk. The report provides assessments for deployed and non-deployed quarterly ship steaming days requirements, and projected ship and air depot maintenance programs. The report also provides documentation supporting the required certification. The FY 2010 annual report is enclosed.

Please let me know if I can be of any further assistance. A similar letter is also being provided to Chairman Levin, Chairman Skelton and Chairman Murtha.

Sincerely,

BJ Penn
Acting

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

SECNAV COORDINATION PAGE

Office/Dept	Point of Contact/Title	Phone	Date
FMB1	CAPT Barry Bruner Director	(703) 695-5801	5 May 09
N43	RDML Thomas Moore Director	(703) 601-1670	7 May 09
FMB	RADM J. T. Blake Director	(703) 697-7105	8 May 09
ASN(FM&C)	RADM J. T. Blake Acting (ASN(FM&C))	(703) 697-7105	11 May 09
OLA	CAPT Steve Vahsen	(703) 697-7146	13 May 09
SAL	CDR Gary Sharp	(703) 697-6935	13 May 09

REPORT TO CONGRESS

FY 2010 DEPARTMENT OF THE NAVY ASSESSMENT OF SHIP STEAMING DAYS, SHIP DEPOT MAINTENANCE, AND AIR DEPOT MAINTENANCE WORKLOAD

OFFICE OF THE ASSISTANT SECRETARY OF THE NAVY
(FINANCIAL MANANGEMENT AND COMPTROLLER)

1000 NAVY PENTAGON

WASHINGTON, DC 20350

MAY 2009

TABLE OF CONTENTS

1. ASSESSMENT 3

A. Assessment of deployed and non-deployed ship steaming days per quarter, itemized by active-duty component and reserve component, and the associated budget request 3

B. Assessment of the CNO ship depot maintenance availabilities 4

B1. Table showing ship depot maintenance availabilities by type and location 4

C. Assessment of air depot maintenance workload 5

C1. Table summary of air depot maintenance by engine units and location 5

C2. Table summary of air depot maintenance by airframe units and location 7

C3. Table summary of air depot reserve maintenance by engine units and location 9

C4. Table summary of air depot reserve maintenance by airframe units and location 10

REPORTING REQUIREMENT

Section 361 of the John Warner National Defense Authorization Act for FY 2007 directed the Secretary of the Navy to submit an annual report setting forth the progress toward funding the requirements for the number of ship steaming days per quarter for Navy ship operations as well as projected depot maintenance for Navy ships and aircraft. The required report shows that the Navy has budgeted and programmed funding to fully meet the requirements for that fiscal year for each of the following:

(1) The deployed and non-deployed quarterly ship steaming day requirements, itemized by active-duty component and reserve component.

(2) The associated budget request for each of the following:

(A) Deployed and non-deployed ship steaming days per quarter.

(B) Chief of Naval Operations ship depot maintenance availabilities, shown by type of maintenance availability and by location.

(C) Air depot maintenance workload, shown by type of airframe and by location.

1. Steaming Day Requirement

A. Deployed and Non-deployed ship steaming days per quarter.

Active Component

The FY 2010 ship steaming day requirement for the active duty component is 58 days per quarter deployed and 24 days per quarter non-deployed to meet mission requirements and theatre security cooperation. This level of Operational Tempo (OPTEMPO) assumes the receipt of Overseas Contingency Operations (OCO) funding. The steaming day requirement supports the Fleet Response Plan (FRP), enabling ships to surge and reconstitute rapidly by maintaining the continuous flow of ships from maintenance after deployment, through basic phase training back to ready assets. This concept enables the Department to provide multiple Carrier Strike Groups within required time frames to meet any threat and deliver a decisive military force if necessary. The non-deployed OPTEMPO provides for the training of units when not deployed, including participation in individual unit, multi-unit, and joint exercises, and various other training efforts.

Reserve Component

The FY 2010 ship steaming day requirement for the reserve component is 45 days per quarter deployed and 20 days per quarter non-deployed.

B. CNO Ship depot maintenance requirements.

The types of ship depot maintenance availabilities that will be conducted in FY 2010 are:

Selected Restricted Availability (SRA)
Planned Maintenance Availability (PMA)
Planned Incremental Availability (PIA)
Carrier Incremental Availability (CIA)
Overhaul (OH)
Service Craft Overhaul (SCO)

The number, type and location of the availabilities programmed during FY 2010 are delineated in the following table:

Planned Ship Availabilities

Location	FY 2010					
	Availability Count - Active					
	SRA	PMA	PIA	CIA	OH	SCO
Jacksonville, FL						
Newport News, VA	1					
Norfolk, VA	4	1	2	4		
Groton, CT	2					
Portsmouth, NH	2				2	
Pearl Harbor, HI	4				2	
Puget Sound, WA	1		2	4	1	
San Diego, CA						
FDNF	1					
TBD						1
Total Availabilities	15	1	4	8	5	1

Typically, the Navy's budget for Ship Maintenance will reflect a small percentage for deferred maintenance. The amount programmed and budgeted in FY 2010 including overseas contingency funding for Ship Maintenance is 96% of the requirement. This percentage of funding recognizes that a portion of the ship maintenance requirement is affected by Overseas Contingency Operations (OCO) and will be funded in connection with ongoing operations.

C. Air depot maintenance requirements.

The Air Depot Maintenance FY 2010 workload, shown by type of airframe / engine and location is displayed below. The amount programmed and budgeted is sufficient to meet the 100% of the Primary Aircraft Authorized (PAA) for deployed squadrons, with 97% of the non-deployed squadrons meeting the 90% goal level. Engine maintenance is funded to achieve the goal of zero net Bare Firewalls, with 67% of the engine Type/Model/Series meeting the goal of having a 90% pool level. This level of funding supports the Department's Fleet Response Plan (FRP) requirements for FY 2010.

The following tables summarize air depot maintenance workload by airframe, engine units and by location for Active and Reserve forces.

FY 2010 Air Depot Maintenance Summary of Active Engine Units by Repair Location/Method

		Organic			
Engine	Aircraft	Cherry Point	Jacksonville	Commercial	Inter-Service
250-C20	TH-57			11	
CFM562A2	E-6B				5
F402RR408B	AV-8B	13			
F414GE400	F/A-18E-F/EA-18G		7		
F414GE400A	F/A-18E-F/EA-18G		3		
F414GE400C	F/A-18E-F/EA-18G		241		
F414GE400F	F/A-18E-F/EA-18G		171		
F414GE400H	F/A-18E-F/EA-18G		214		
F414GE400L	F/A-18E-F/EA-18G		200		
F414GE400S	F/A-18E-F/EA-18G		198		
J52P408B	EA-6B		14		
JT12A8	T-39			3	
JT8D9	C-9			1	
MK611-8	C-20D/G			1	
PT6A25	T-34			26	
PT6A34B	T-44			24	
PT6A41	UC-12B			14	
PT6A42	UC-12F/M			9	
PT6A68	T-6			5	
PWC535A	UC-35D			7	
T400CP400G	HH-1N/UH-1N	3			
T400CP400P	HH-1N/UH-1N	1			
T56A14G	P-3			39	
T56A14P	P-3			23	
T56A14T	P-3			26	
T56A425G	C-2A			5	
T56A425P	C-2A			2	
T56A425T	C-2A			2	

T56A427G	E-2C			6	
T56A427P	E-2C			17	
T56A427T	E-2C			7	
T58GE16A	H-46E	44			
T58GE400B	VH-3D	8			
T64GE413	CH-53D	7			
T64GE416	CH-53E	13			
T64GE416A	CH-53E	13			
T64GE419	MH-53E	4			
T700GE401	AH-1W/Z			2	1
T700GE401CL	H60/UH1Y			2	15
T700GE401CX	H60/UH1Y			20	27
T700GE401L	AH-1W/Z			7	13
T700GE401V	VH-60N				6
T700GE401X	AH-1W/Z			3	3
TPE331-12	C-26D			3	
TOTAL		106	1,048	265	70

FY 2010 Air Depot Maintenance Summary of Active Airframe Units by Repair Location/Method

		Organic			
Aircraft	Cherry Point	Jacksonville	North Island	Commercial	Inter-Service
AH-1W	14		13	2	
AV-8B	13		6		
C-20G				1	
C-2A		6	5		
C-26D				5	
C-9B				1	
CH-46E	21			7	
CH-53D				4	
CH-53E	12		10	1	
E-2C		5	7	1	
E-6B					18
EA-6B	7	6	19		
EP-3E				4	
F/A-18A		5	7		
F/A-18B		1			
F/A-18C		27	37	4	
F/A-18D		1	10	1	
F/A-18E		8	8	1	
F/A-18F		8	8	2	
HH-1N			1		
HH-60H		5	4	2	
KC-130J					4
MH-53E	3				
MH-60R			2		
MH-60S		10	13	2	
MV-22B	9				
P-3C		15		8	
SH-60B		15	15	4	
SH-60F		6	7	2	
T-34C				61	
T-39N				5	
T-44A				7	
T-44C				7	
T-45A				34	
T-45C				28	
T-6A				19	
TAV-8B	4				
TC-12B				6	

TE-2C		2			
TH-57B				8	
TH-57C				16	
UC-12B				2	
UC-12M				2	
UC-35D				4	
UH-1N	7		7	1	
VH-3D				2	
VH-60N				2	
TOTAL	90	120	179	256	22

FY 2010 Air Depot Maintenance Summary of Reserve Engine Units by Repair Location/Method

		Organic			
Engine	Aircraft	Cherry Point	Jacksonville	Commercial	Inter-Service
BR710	C-37			1	
J52P408B	EA-6B		1		
JT15D5D	UC-35C			3	
JT8D9	C-9			6	
MK511-8	C-20A			3	
MK611-8	C-20D/G			3	
PT6A41	UC-12B			4	
PWC535A	UC-35D			3	
T400CP400G	HH-1N/UH-1N	1			
T400CP400P	HH-1N/UH-1N	2			
T56A14G	P-3			1	
T56A14P	P-3			1	
T56A14T	P-3			2	
T56A16G	KC-130F/KC-130R			28	
T56A16P	KC-130F/KC-130R			32	
T56A16T	KC-130F/KC-130R			13	
T56A427G	E-2C			1	
T56A427P	E-2C			2	
T56A427T	E-2C			1	
T58GE16A	H-46E	4			
T64GE416	CH-53E	1			
T64GE416A	CH-53E	1			
T64GE419	MH-53E	1			
T700GE401	AH-1W/Z			1	1
T700GE401CL	H60/UH1Y			3	0
T700GE401CX	H60/UH1Y			0	1
T700GE401L	AH-1W/Z			3	0
T700GE401V	VH-60N			0	2
T700GE401X	AH-1W/Z			1	0
TOTAL		10	1	112	4

FY 2010 Air Depot Maintenance Summary of
Reserve Airframe Units by Repair Location/Method

		Organic			
Aircraft	Cherry Point	Jacksonville	North Island	Commercial	Inter-Service
AH-1W	8				
C-130T					3
C-20A				1	
C-20D				1	
C-20G				2	
C-40A				3	
C-9B				6	
CH-46E	4				
CH-53E	1				
E-2C		1			
EA-6B				2	
F-5N				8	
F/A-18A		4	5		
F/A-18C		1	4		
HH-60H		4			
KC-130T					5
MH-53E	1				
MH-60S			2		
SH-60B		1			
UC-12B				1	
UC-35C				2	
UH-1N	3				
TOTAL	17	11	11	26	8

REPORT TO CONGRESS

DDG 1000 ZUMWALT CLASS DESTROYER CONSTRUCTION READINESS ASSESSMENT

PREPARED BY
PEO Ships

January 5, 2009

TABLE OF CONTENTS

1.0 Report Requirement

2.0 Executive Summary

3.0 Program Description

4.0 Construction Readiness Assessment

- 4.1 Maturity of the Ship's Design
  - 4.1.1 Specification Stability
  - 4.1.2 Design Completion
- 4.2 Maturity of Developmental Systems
- 4.3 Readiness of Shipyard Facilities
- 4.4 Budget and Estimate at Completion
- 4.5 Delivery Date and Schedule Variance
- 4.6 Risk Management
  - 4.6.1 Earned Value Management
  - 4.6.2 Risk Management
  - 4.6.3 Program Metrics

5.0 Conclusion

1.0 Report Requirement

This report provides a production readiness review as described in Section 124 of the National Defense Authorization Act (Public Law 110-181) for Fiscal Year 2008. Section 124, Assessments Required Prior to Start of Construction on First Ship of a Shipbuilding Program, requires submission to Congress of a production readiness review concurrent with approval of the start of construction of the first ship of a major shipbuilding program. Section 124 does not apply to the DDG 1000 Class program because this major shipbuilding program began at the two lead ship construction shipyards before the date of enactment. Knowing that Congress would like to receive the type of information described in Section 124 for the DDG 1000 program, the Navy has prepared this DDG 1000 production readiness review report. Section 124 states that, concurrent with approving the start of construction of the first ship for any major shipbuilding program, the Secretary of the Navy shall (1) submit a report to the congressional defense committees on the results of any production readiness review; and (2) certify to the congressional defense committees that the findings of any such review support commencement of construction. Section 124 states further that the report required should provide an assessment of each of the following:

a. The maturity of the ship's design, as measured by stability of the ship contract specifications and the degree of completion of detail design and production design drawings.

b. The maturity of developmental command and control systems, weapon and sensor systems, and hull, mechanical and electrical systems.

c. The readiness of the shipyard facilities and workforce to begin construction.

d. The Navy's estimated cost at completion and adequacy of the budget to support the estimate.

e. The Navy's estimated delivery date and description of any variance to the contract delivery date.

f. The extent to which adequate processes and metrics are in place to measure and manage program risks.

This report is provided in accordance with this requirement.

2.0 Executive Summary

The DDG 1000 Zumwalt Class Destroyer Total Ship System (TSS) Production Readiness Review (PRR) was successfully conducted on October 28, 2008. All aspects of the program were reviewed against rigorous entrance and exit criteria. The review represented the culmination of thirteen years of research and development, risk reduction, and ship detail design. Through the successful application of the most current three dimensional design and production software tools, the DDG 1000 design will be significantly more complete than any previous shipbuilding program at the start of construction. The first of the DDG 1000 Class lead ships is scheduled to begin fabrication in February 2009.

The developmental command and control systems, weapon and sensor systems, and hull, mechanical and electrical systems are mature. The major components of the DDG 1000 Mission System, such as the SPY-3 Multi-Function Radar (MFR), Total Ship Computing Environment Infrastructure (TSCEI), Mk 57 Vertical Launching System (VLS), Advanced Gun System (AGS), SQQ-90 Acoustic Sensor Suite, and the External Communications Suite, are in production with an average 14 month slack in the production schedule compared to the ship in yard need date. Four of six software releases have been completed. The remaining two software releases are on schedule for delivery to Philadelphia and Wallops Island Land Based Test Sites to support DDG 1000 ship activation, test, and delivery. The major hull, mechanical, and electrical systems, such as the Integrated Power System (IPS) and developmental systems such as the Retractable Sliding Kingpost, Anchor Handling System, Aircraft Handling Systems, and Boat Handling System have been released for manufacturing with an average 7 month slack in the production schedule compared to the ship in yard need date.

The surface combatant shipbuilding industrial base is prepared to build the DDG 1000 Class of destroyers. The required infrastructure for construction of this new class of destroyers at General Dynamics Bath Iron Works (BIW) and Northrop Grumman Shipbuilding (NGSB) is already in place. The transition from DDG 51 Class of Destroyers to the DDG 1000 Class has been carefully planned to avoid costly workload dips at either shipyard. Completion of several production pilot programs has confirmed the ability of the shipyards to transition the design to production and verified interfaces to legacy manufacturing and purchasing systems, demonstrating readiness for sustained production.

The Secretary of the Navy provides this report, and the analysis contained within, as certification that the findings of the DDG 1000 TSS PRR held on October 28, 2008 support the start of construction in February 2009.

3.0 Program Description

The DDG 1000 Class of Destroyers will be multi-mission surface combatants capable of fulfilling volume firepower and precision strike requirements, and be less susceptible to detection through significant improvements in signature reduction. These advanced warships, illustrated in Figure 1, will provide credible forward naval presence while operating independently or as an integral part of Naval, Joint or Combined Expeditionary Strike Forces. Armed with an array of weapons, these ships will provide offensive, distributed, and precision firepower at long ranges in support of forces ashore. They will incorporate advanced active and passive self-defense systems, enhanced survivability features, and have a significantly reduced crew size in comparison to today's surface combatants.

The DD(X) Program successfully completed Critical Design Review (CDR) on September 14, 2005. The CDR demonstrated that the ten Engineering Development Models sufficiently mitigated technical risks and the program was ready to proceed with detail design. The Program achieved Milestone B (MS B) on November 23, 2005 and was authorized entry into the System Development and Demonstration (SDD) Phase.

In April 2006, DD(X) was designated the DDG 1000 Zumwalt Class Destroyer Program. Detail design contracts for the lead ships were subsequently awarded to BIW and Northrop Grumman Ship Systems (now NGSB) in August 2006. The shipbuilders established a work share agreement by which each would produce nearly equal portions of the ship detail design. In addition, the shipyards would demonstrate their respective production design-to-build processes by each constructing an Advanced Machinery Block (AMB).



Figure 1. DDG 1000 Class Destroyer.

In parallel with ship detail design activities, the Navy contracted with Raytheon Company and their major subcontractor, Lockheed Martin, to complete development of the DDG 1000 Mission System, a fully integrated command and control, weapon, sensor, external communications, and engineering control system. Additional efforts included software development, completion of non-recurring Mission System Equipment (MSE) design and transition to production, and procurement of the first and second ship sets of MSE. In addition, a contract was awarded to BAE Systems to complete development, testing, and qualification of the Long Range Land Attack Projectile (LRLAP), complete non-recurring Advanced Gun System (AGS) design and transition to production, and procure the first two AGS ship sets.

4.0 Construction Readiness Assessment

4.1 Maturity of the Ship's Design

The DDG 1000 ship's design is more mature than any lead ship surface combatant to date at the start of construction in February 2009. The contract specifications are stable. The degree of completion of detail design and production design are high as measured by the completion of functional design, ship arrangements, three dimensional (3D) design models, and the start of

production planning activities. Approved design changes are incorporated before the drawing need dates, reducing the probability of costly rework during ship production.

4.1.1 Specification Stability

The DDG 1000 design and contract specifications are stable. The DDG 1000 specification tree structure implemented in the Specification Production Document (SPD) is hierarchical as shown in Figure 2. At the top is the DD(X) Operational Requirements Document (ORD). A product of the Joint Capabilities Integration and Development System (JCIDS) process during the Technology Development Phase, the DD(X) ORD documents the Key Performance Parameters (KPPs) and other performance measures for DDG 1000 as approved by the Joint Requirements Oversight Council (JROC). These baseline performance requirements established by the ORD were further decomposed, defined, and allocated to lower tier design specifications, down to the lowest level Component Specifications, that included systems provided by the shipyards and the systems integrator. The Design Build and Process Specification (DBPS) is the ship baseline technical specification for ship detail design, production, and test, and traces to the specification tree.

Requirements stability has been a primary focus throughout DDG 1000 development. Following the DD 21 program's restructure into DD(X) in the fall of 2002, a draft DD(X) ORD was reviewed and validated following a Spiral Design Review in 2003. This draft ORD supported the development of all lower tier performance specifications, including the DBPS which obtained approval from Naval Sea Systems Command Chief Engineers prior to Milestone B. Approved in February 2004, the DD(X) ORD remained unchanged until November 2005 when the JROC elevated performance parameters for force protection and survivability. However, these changes had no impact to lower tier specifications since the parameters chosen by the JROC were already satisfied by the existing design. As such, requirement variances over time were limited to requirements allocations and definitions inherent with each iteration and refinement of functional and detail design.

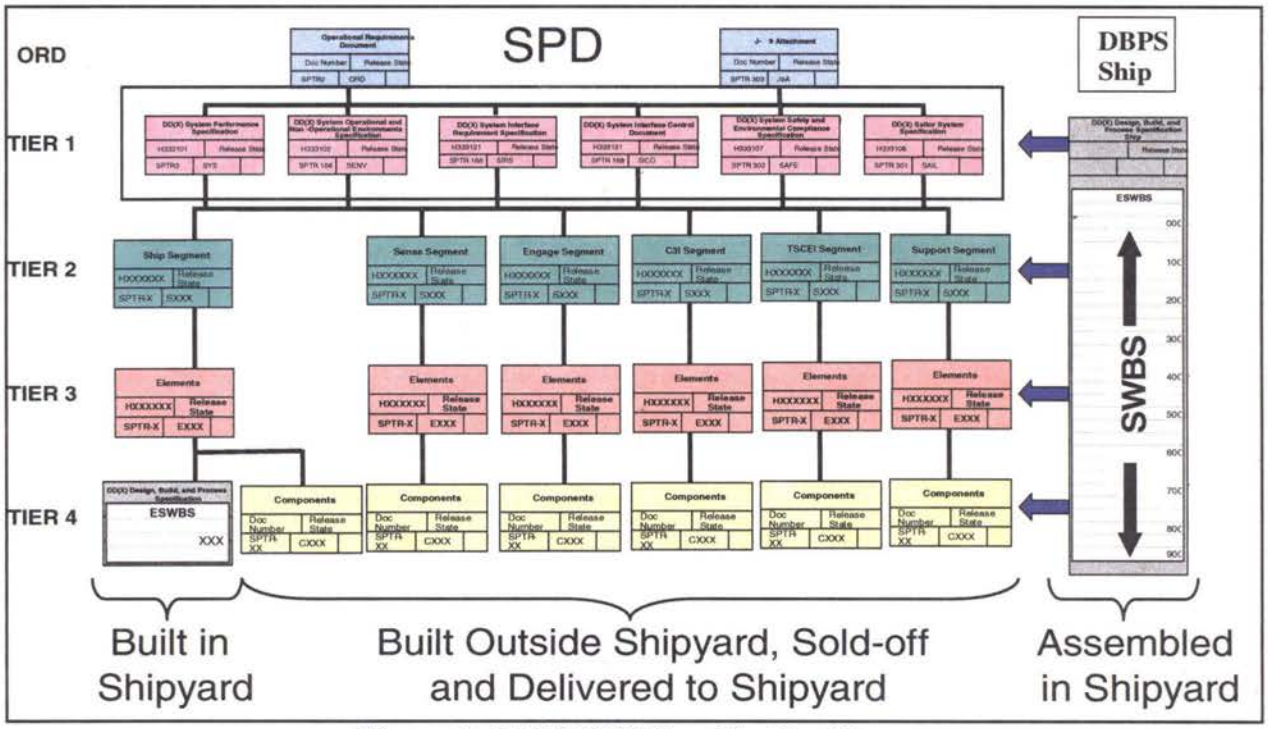


Figure 2. DDG 1000 Specification Tree.

4.1.2 Design Completion

The DDG 1000 ship detail design process is illustrated in Figure 3. Significant progress and design maturity have been demonstrated in the four major steps of this process: Functional Design, Material Definition and Major Equipment Purchase, Detail Design, and Manufacturing Support.

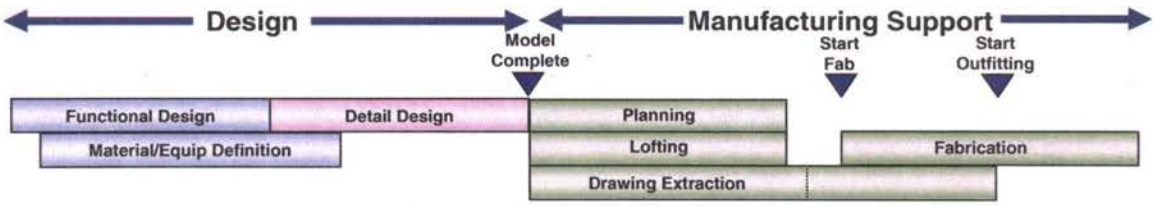


Figure 3. DDG 1000 Ship Detail Design Process.

a. Functional Design. Functional design translates requirements into functional products, including diagrams, purchase specifications, initial design calculations, system descriptions, and analyses. The DDG 1000 functional design is essentially complete, with 95% of the functional design approved by the Navy Technical Authority (NTA) and the American Bureau of Shipping (ABS) and the last few remaining products on schedule for approval by February 2009. Some of the key products of this phase are the structural engineering products and their drawings, which have been approved by ABS in support of the start of steel fabrication.

b. Material Definition and Major Equipment Purchase. Material and equipment definition takes the functional requirements and develops contract documents to procure Design Vendor Furnished Information (DVFI) and equipment. The DVFI provides definition of equipment that is to be located in the 3D zone design models, such as equipment size, weight, interfaces, cooling, etc. equipments. All of the 139 Class Common Equipment (CCE) Procurement Specifications have been issued, 95% of them have been awarded, and they are all firm fixed price. The few remaining contracts are on schedule to be awarded prior to the start of fabrication in February 2009. Delivery order placement is approximately seven months ahead of schedule, allowing schedule slack for unanticipated problems. Advanced steel purchases have been placed and 53% has already been shipped. Composite material buys (i.e., balsa, carbon fiber cloth, resin) have been placed and 12% has been shipped to support the start of fabrication of the DDG 1000 composite deckhouse and hanger in February 2009. In addition, the program has achieved significant efficiencies by reusing parts from the DDG 51 Program. DDG 1000 has 30% fewer parts than a DDG 51 (15,000 vs. 21,000) and of those, 63% (9,351) are common with DDG 51. Using common parts with DDG 51 means less design effort and an active inventory for immediate use.

c. Detail Design. Detail design uses today's most modern Computer Aided Design (CAD) tool, the CATIA v5 and ENOVIA environment, to create and maintain configuration management of a geometric, data rich representation of the design of all 94 of the ship zones. An example of this detail for the DDG 1000 Auxiliary Machinery Room (AMR) #1 is shown in Figure 4.

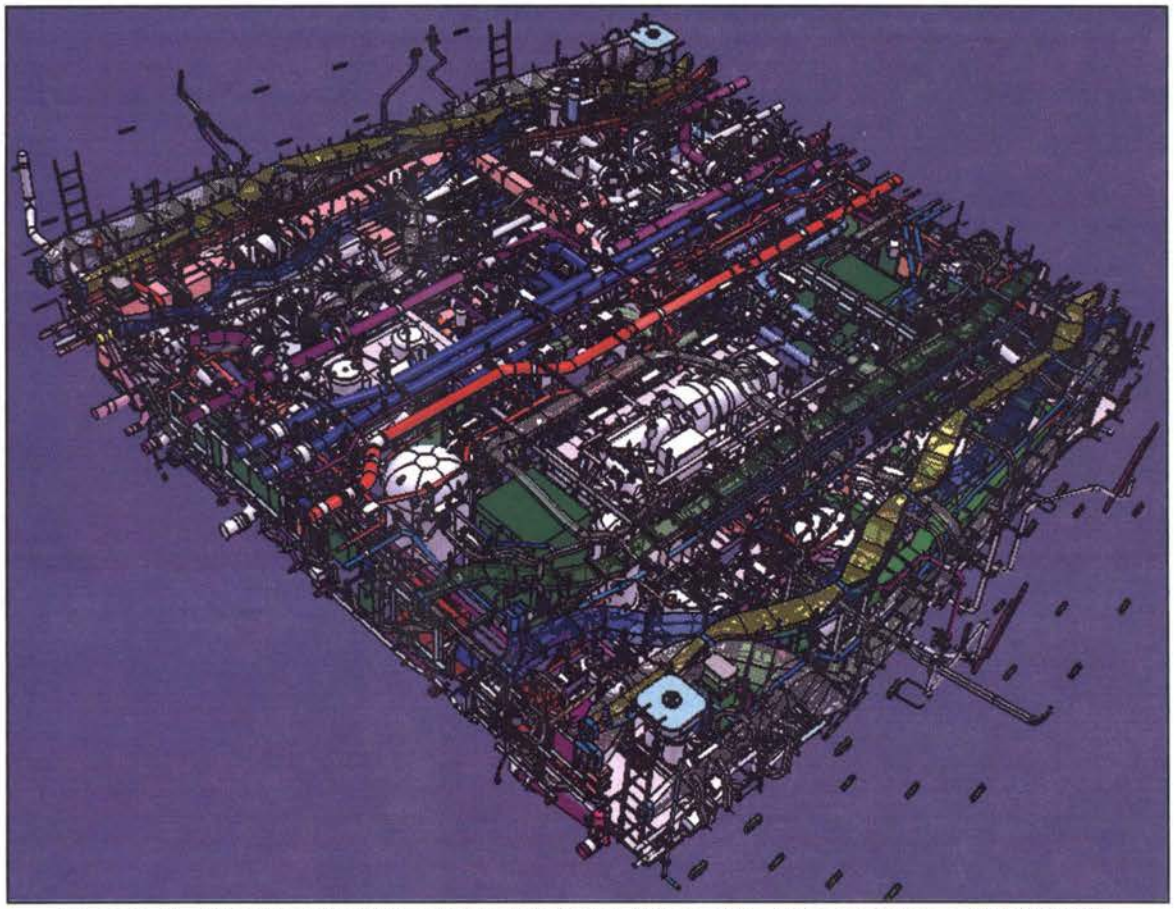


Figure 4. 3D Model of the DDG 1000 Auxiliary Machinery Room (AMR) #1.

As seen in Figure 4, every detail of the ship is modeled, down to the bolts that hold the equipment in place. These models undergo an exhaustive design review process where Government and industry subject matter experts complete 3D "hand over hand" design reviews to verify correctness. The CAD tools also provide designers with significant efficiencies in the ability to conduct interference checking, verify the equipment removal routes, and ensure access and usability by modeling the 95th percentile male and 5th percentile female sailor. The final zone design review verifies that the ship arrangements are complete. As of the TSS PRR (28 Oct 08), 80% of the arrangements were complete and on schedule to reach 100% completion by the start of fabrication in February 2009. The completion of the 3D zone models are progressing satisfactorily, with 35% complete at TSS PRR and 89% scheduled for completion by the start of fabrication. The remaining 11% of the zone models will be 100% complete prior to the scheduled start of fabrication for those zones, beginning in June 2009 and ending with the last zone in May 2010.

d. Manufacturing Support. Manufacturing support consists of the concurrent processes of production planning, steel lofting, and two dimensional (2D) drawing extraction. Manufacturing support activities are performed directly from the 3D zone models, not from drawings, as shown in figure 5.

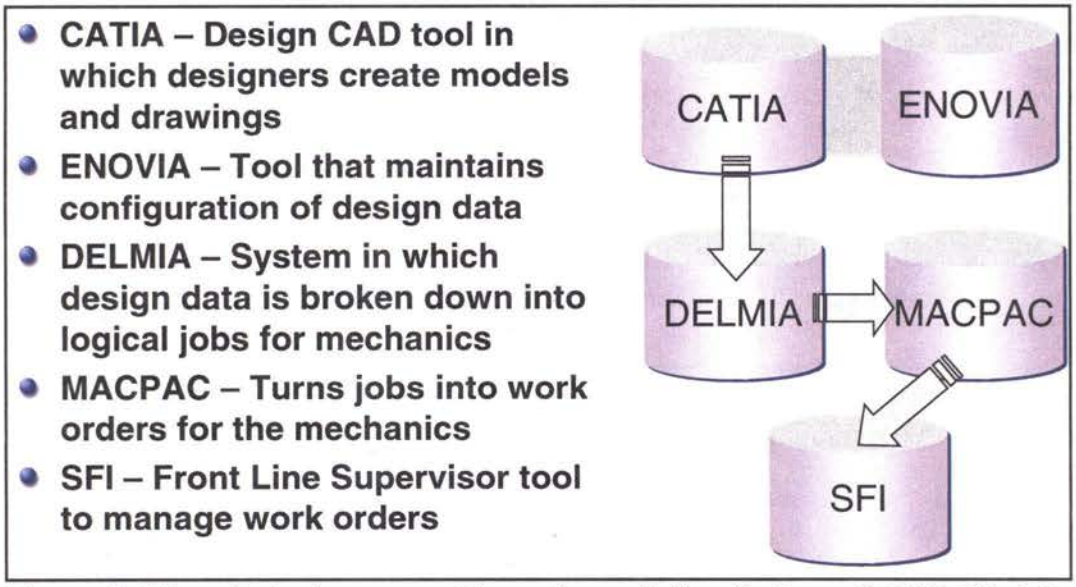


Figure 5. Manufacturing support is performed directly from CATIA Models.

Production planning consists of using the CATIA 3D models to produce zone specific build and equipment load out plans and schedules in DELMIA, create work orders in MACPAC, and shop floor instructions in SFI for use by mechanics. Steel lofting creates plate and shape sketches directly from the CATIA models that feed legacy Computer Aided Manufacturing (CAM) systems for the efficient nesting and cutting of steel. 2D drawings are extracted and submitted to ABS for final approval and then delivered to the mechanics "just in time" for production. As of the TSS PRR, 56% of the 2D drawing extractions had started, 86% will have started by the start of fabrication, and 20% will be completed in time to support fabrication of the first zones. All 2D extracted drawings are on schedule to support the production need dates.

In summary, functional design is essentially complete and major equipment purchases are ahead of schedule with approximately 7 months of slack in the shipyard need date. 3D model completion is the key to production readiness, with 89% of the models complete and released by the start of fabrication. Manufacturing support activities, including 2D drawing extractions, are on schedule to support the production need dates. DDG 1000 will be ready to start fabrication in February 2009.

4.2 Maturity of Developmental Systems

Maturity of the key DDG 1000 developmental systems began in the Technology Demonstration Phase with the successful development and test of ten Engineering Development Models. A Milestone B Technology Readiness Assessment (TRA) was conducted by the Office of Naval Research and an independent expert review panel in January, 2005. These critical technologies have continued to mature since then, as summarized in Figure 6.

Technology	TRL at MS B	TRL at Dec 05	TRL at Dec 06	TRL at Dec 07	TRL at TSS PRR	In Yard Date
Advance Gun System and LRLAP	6	6	6	6	6	FY 11/ FY 13
Integrated Power System	6	6	6	6	6	FY 09
Dual Band Radar Suite – MFR / VSR	6/5	6/5	7/5	7/5	7/6	FY 10
Total Ship Computing Environment	5	5	5	5	5	FY 12
Peripheral Vertical Launching System / Advanced Vertical Launching System	6/6	6/6	6/6	6/6	6/6	FY 08/ FY 11
Integrated Deckhouse and Apertures	5	6	6	6	6	FY 11
Hull Form	6	6	6	6	6	FY 09
Infrared Signature Mock-ups	6	6	6	6	6	FY 10
Autonomic Fire Suppression System	6	7	7	7	7	FY 09
Integrated Undersea Warfare System	7	7	7	7	7	FY 10

Figure 6. DDG 1000 Critical Technologies Technology Readiness Levels.

All technologies will achieve the Technology Readiness Level (TRL) of 6 (system demonstration in a relevant environment) or better by ship installation. The Total Ship Computing Environment (TSCE) will achieve TRL 6 upon completion of the Software Release 5 System Acceptance Test and Software Certification Panel in FY 10.

In addition to the DDG 1000 critical technologies, the other major developmental command and control systems, weapon and sensor systems, and hull, mechanical and electrical systems are likewise mature. The design of the Mission System is complete, and 24 of the 26 major Mission Systems Equipment, some of which are illustrated in Figure 7, are in production. The two remaining systems, Ship Surveillance System and Line of Sight/Beyond Line of Sight Communications, will be in production prior to the start of fabrication and will meet the ship in yard need dates. In summary, 95% of the MSE designs are released, 88% of the material is on order, 66% of the material has been received, and 23% of the equipment assembly is complete. There is an average 14 month slack in the production schedule compared to the ship in yard need date. The Mission Systems Equipment is mature and supports the start of fabrication.

Software Releases (SR) 1, 2, 3, and 4 are complete and were authorized to proceed by an independent Navy software certification panel. The releases demonstrated Total Ship Computing Environment Infrastructure (TSCEI), anti-air warfare timeline, initial multi-function mission capability, and additional multi-mission capability and initial failover functionality, respectively. Software Release 5 completed Critical Design Review in June 2008 and will provide core anti-air warfare, land attack warfare, and integrated undersea warfare functionality.

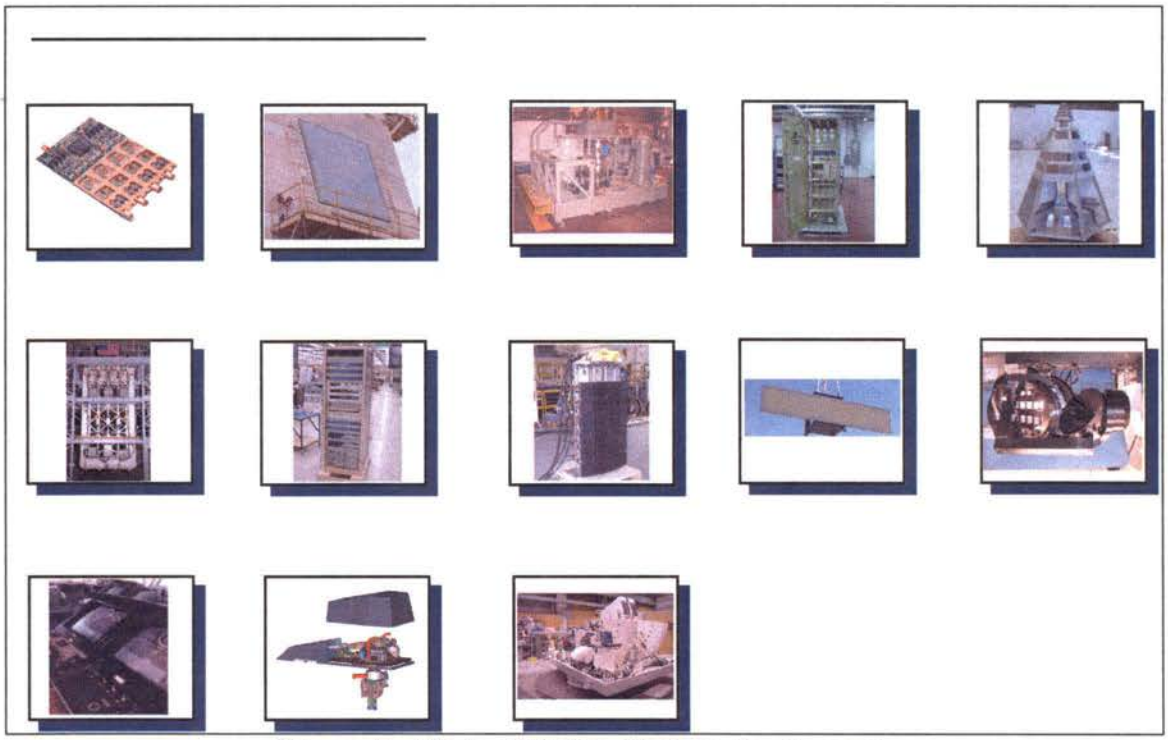


Figure 7. Major Mission System Equipment.

Software Release 6 is in the requirements analysis phase and will provide hull, mechanical, and electrical and final warfare systems functionality. As of the TSS PRR, 50% of the total DDG 1000 software development was complete, and software releases 5 and 6 remain on schedule to support Integrated Power System (IPS) Land Based Testing at Philadelphia, Mission System Land Based Testing at Wallops Island, and ship activation & delivery.

The majority of the hull, mechanical, and electrical (HM&E) systems are not developmental, and are leveraging DDG 51 parts as previously discussed in paragraph 4.1.2. There are 11 major developmental HM&E systems, including the Integrated Power System (IPS), Peripheral Vertical Launching System (PVLS), Retractable Sliding Kingpost, Anchor Handling System, Aircraft Handling System, Embarkation Platform, Boat Handling System, Flight Deck Personnel Safety Barrier and Berm, Mooring and Boat Bay Doors, Steering Gear, and Shaft Turning Gear. The IPS successfully completed a PRR on September 9-10, 2008 and the major system components are in production. The Aft PVLS successfully completed a PRR on September 24, 2008 and is on schedule for delivery. For the remaining major developmental systems, the designs are complete, the Design Vendor Furnished Information (DVFI) has been received and is included in the 3D design models, and the equipment production is on schedule to meet the in yard need dates. The HM&E systems are mature and support the start of fabrication.

4.3 Readiness of Shipyard Facilities

The DDG 1000 Shipyard Industrial Base consists of General Dynamics Bath Iron Works (BIW) and Northrop Grumman Shipbuilding (NGSB). The first lead ship, DDG 1000, will be constructed and delivered by BIW. The second lead ship, DDG 1001, will be constructed and delivered by NGSB. A work share agreement exists between BIW and NGSB for the lead ships

such that BIW will construct and deliver the mid-forebody to NGSB for DDG 1001 and NGSB will construct and deliver the composite deckhouse, helicopter hangar, and Aft PVLS to BIW for DDG 1000. The Navy has reviewed the readiness of both shipyards and determined that sufficient facilities, labor, and capacity exist to deliver DDG 1000 as required by the program of record.

Significant advances in production capabilities have been achieved at both shipyards. The new BIW Ultra Hall facility, lifting, and transportation capabilities at BIW will allow assembly of larger manufacturing units. Completed in February 2008, the Ultra Hall will enable BIW to erect DDG 1000 from fewer units than the last DDG 51 ships, which are significantly smaller than DDG 1000.

In 2005, many NGSB facilities in Pascagoula, Mississippi were damaged or destroyed by Hurricane Katrina. Over the last several years, NGSB has repaired or rebuilt its facilities. One of the major facility upgrades included a significant expansion of their structural panel line. NGSB commenced comprehensive testing of their production line improvements in June 2008 while constructing the DDG 1000 Advanced Machinery Block (AMB) production pilot. In addition, a significant investment has been made to the NGSB composite manufacturing facilities in Gulfport, MS.

In November 2006, Advanced Machinery Block (AMB) pilot programs were initiated at BIW and NGSB to test production processes and demonstrate capability to build the other shipyard's design. The AMB pilots also demonstrated detail design processes, material costs, and actual craft labor costs. Recent review of the AMB efforts identified several lessons learned with significant cost avoidance through labor reduction during construction. The early AMB results were so encouraging that the Navy and shipbuilders agreed to accelerate the schedule of selected construction zone pilots for the purpose of identifying additional process improvements. The shipbuilders and the Navy expect a number of new design features will improve the producibility of the DDG 1000 Class of destroyers when compared to previous ships built, such as machinery rafting, modular system assembly, increased deck heights, and installation of fully outfitted deckhouses built by NGSB.

In conclusion, the shipyard facilities and workforce at BIW and NGSB are ready to begin construction of the lead ships.

4.4 Budget and Estimate at Completion

The lead DDG 1000 Class ship was part of a dual lead ship acquisition strategy, with the first lead ship being built at BIW. The SCN funding for the dual lead ships includes FY 2005 and FY 2006 Advance Procurement (AP) and split funding in FY 2007 and FY 2008. The table below represents the SCN funding, by Fiscal Year, for the dual lead ships.

($M)	FY05	FY06	FY07	FY08	Total
SCN AP	304.0	706.2			1,010.2
SCN Split Funding			2,557.3	2,757.0	5,314.3
Total	304.2	706.0	2,557.3	2,757.0	6,324.5

DDG 1000 Dual Lead Ships SCN Budget

Under the dual lead ship acquisition strategy, the Navy separated the integrator and combat systems functions from the shipbuilder functions by awarding contracts in May 2005 to Raytheon for the Mission Systems Design and transition to production of the Mission System Equipment (SCN funded), and to BAE Systems for the Advanced Gun System design and transition to production (SCN funded). In addition, transition design contracts were awarded to both BIW and NGSB in September 2005 to begin transition detail design efforts prior to the Milestone B in November 2005. The transition design efforts allowed the shipbuilder to conduct preliminary detail design efforts until formal detail design contracts, authorized at Milestone B, were negotiated and awarded to BIW and NGSB in August 2006. Subsequently, ship detail design and construction options were awarded to BIW and NGSB in February 2008. The integration, management, and oversight of the four prime cost plus type contracts to BIW, NGSB, Raytheon, and BAE are managed by the Navy.

The shipbuilder and mission system detail design and transition to production efforts are all non-recurring engineering costs that are being attributed to the two lead ships. The cost performance of these efforts has been outstanding and will be essentially complete with the completion of the detail design in the 3rd quarter of FY 2009.

The recurring lead ship costs for material and labor are contained in separate contract line items on the four prime contracts. In addition to the procurement of the individual ships, each shipbuilder has a work share for each ship. Under a shipbuilder construction work share agreement established by BIW and NGSB, for the first ship NGSB will provide the composite deckhouse, hanger, and Aft PVLS to BIW as Government Furnished Equipment. For all ships that are constructed by NGSB, BIW is providing the mid fore body as Government Furnished Equipment.

A great deal of cost analysis and proposal review between BIW and the Navy went into the negotiation of the lead ship construction contract with BIW prior to the final contract award in February 2008. The BIW proposal was based on their recently completed DDG 51 ships to account for labor efficiencies as a result of the land level transfer facility and the Ultra Hull Facility construction processes. As a result of the exhaustive review and months of face-to-face Navy-BIW fact finding meetings, both the Navy and BIW are confident that the construction of the lead ship can be executed for the target price in the contract. The largest area of execution risk is likely to be shipyard labor cost as a result of the uncertainty of future shipyard workload.

In addition to the BIW construction contract for the lead ship, the NGSB work share for production of the composite deckhouse, hanger, and PVLS is a significant component of the lead ship budget. NGSB recently updated their deckhouse cost model based on the recent production

of the deckhouse Large Scale Shock Test Article (LSSTA). The updated cost model using the return cost data from the LSSTA indicated the potential for cost growth as compared to the original bid, largely due to the complexity of some of the joints in the test article. The technical quality of the test article was outstanding. However, as a result of the updated cost data, the Navy and NGSB intend to build additional samples to validate the proposed cost prior to the start of fabrication in February 2009. The Navy views this as a risk watch area.

In summary, the Navy acknowledges the inherent risks and complexities of constructing a highly complex surface combatant with as much new technology as DDG 1000. However, the Navy's significant RDT&E and non-recurring SCN investment in the DDG 1000 program has greatly mitigated these risks. As such, a number of technical risks encountered to date have been addressed within budget. Software development (needed for land based testing and delivery of the lead ship), the amount of change order funding, and the aggregate risk inherent in the magnitude of new technology on DDG 1000 are the primary risk watch areas affecting execution of the lead ship construction. The DDG 1000 Program has an extensive risk management program and continues to monitor program cost, including submission of quarterly cost and performance metrics to OSD. Performance to date has been positive and the Navy will continue to aggressively monitor the execution of this program through completion of the lead ship and delivery to the Fleet.

4.5 Delivery Date and Schedule Variance

The ship delivery schedule is shown in Figure 8. DDG 1000 is scheduled to start fabrication in February 2009 and DDG 1001 in November 2009, after completion of the DDG 1001 PRR. The incorporation of approved design changes and unexpected CATIA modeling environment latency issues at BIW has been the largest design schedule drivers.

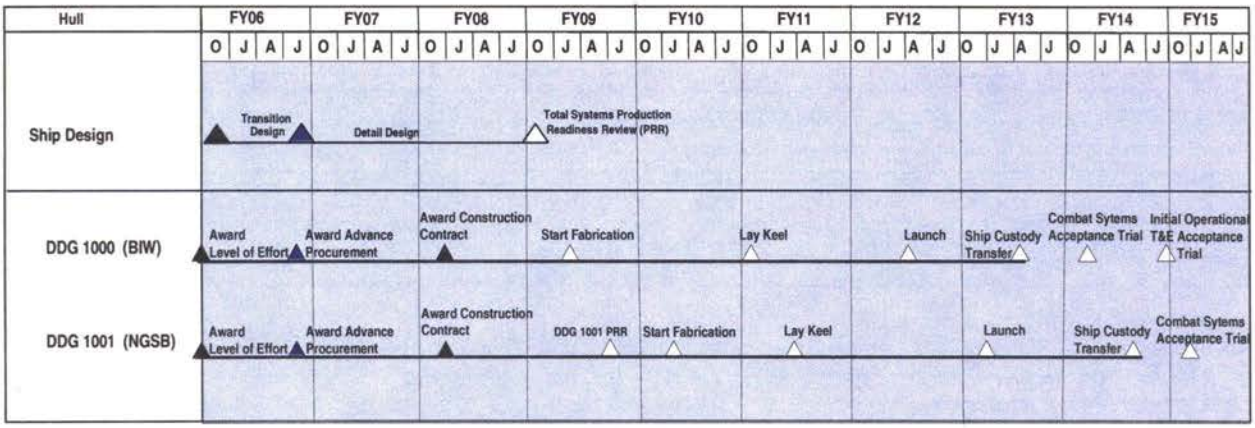


Figure 8. Lead Ship Delivery Schedule.

The current design schedule represents a slip of approximately 7 months when compared to the schedule awarded in August 2006. The decision to incorporate the approved design changes during the detail design phase was significantly more cost effective and reduced the probability of costly rework and even greater delays during the construction phase. Navy has maintained a firm stance that production will not start until the design is sufficiently complete. The

corresponding risk to the ship delivery schedule is currently estimated to be approximately 3 months.

4.6 Risk Management

4.6.1 Earned Value Management

Earned Value Management (EVM) is a key integrating process in the management and oversight of acquisition programs. It is a management approach that combines both government management requirements and industry best practices to ensure the total integration of cost, schedule, and work scope aspects of contracts. The DDG 1000 contracts administered by Naval Sea Systems Command (NAVSEA) incorporate Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.242-7002 and other provisions requiring an EVMS as set forth in the Defense Acquisition Guidebook, DOD Instruction 5000.2, and the Earned Value Management Implementation Guide.

DDG 1000 prime contractors have certified EVM systems and have demonstrated accurate reporting of contract status and the ability to use EVMS in planning and controlling contract cost and schedule. Contract Performance Reports provide indicators of contract cost and schedule issues and the effects of management action taken to resolve problems affecting cost and schedule performance. This is consistent with the information provided by contractors to other shipbuilding programs.

Both BIW and Raytheon successfully completed EVM surveillance reviews by the Deputy Assistant Secretary of the Navy (DASN), Ships Earned Value Center in 2008. The overall outcome was positive for both reviews, with Raytheon receiving no Corrective Action Requests. All nine process areas were reviewed and all 32 guidelines were open for considerations. An EVM surveillance review of BAE was conducted in December 2008, results of which are pending. It is anticipated that the Defense Contracting Management Agency (DCMA) will conduct a full compliance review in 2009 for NGSB.

4.6.2 Risk Management

Given the complexity of the DDG 1000 Program, all personnel involved in all aspects of ship design, development, and delivery fully participate in risk management. The Program risk management strategy is proactive. Both technical and non-technical risks are mitigated before they cause serious cost, schedule, or performance impacts. Uniform understanding and application of risk management standards as well as open and effective communication among government agencies and contractors at all levels have been the key to program risk reduction and have contributed significantly to program success.

The DDG 1000 Program Manager has overall responsibility for DDG 1000 risk management, including maintaining the Risk Management Plan, approving risk-handling options, and briefing decision makers on the status of DDG 1000 risk efforts. Program risks are continuously assessed to ensure that risks are well understood and that approaches are developed in a timely fashion to manage risks.

Companies contracted to the DDG 1000 Program have implemented risk management plans in accordance with their internal best business policies and practices to support achievement of these objectives and implementation of the DDG 1000 Risk Management Plan. The DDG 1000 Risk Management Process consists of risk identification, risk assessment and prioritization, risk handling development and implementation, and risk tracking and reporting. Program risks are tracked in a risk database and Risk Review Boards held monthly to monitor program risks.

4.6.3 Program Metrics

To further manage risk and support cost control, the DDG 1000 Program has implemented detailed Cost Management Controls to monitor cost performance. The program manager reviews a sweeping array of design and cost metrics weekly. In addition, as a result of direction from the Milestone B Defense Acquisition Board, the DDG 1000 program is required to submit quarterly cost control metrics to OSD. These areas include software, DBR, IPS, detail design, and ship production. These metrics have shown that cost, schedule and risk are stable and the program is proceeding on track.

In conclusion, the Navy believes it has adequate processes and metrics in place to measure and manage program risks.

5.0 Conclusion

Construction of the first lead ship of the DDG 1000 Class is scheduled to begin in February 2009. This represents the culmination of thirteen years of design and development work from 1995 to the present. At construction start, the DDG 1000 design will be in excess of 85 percent complete, which far exceeds any previous ship classes.

The surface combatant industrial base is prepared to build the DDG 1000 Zumwalt Class of destroyers. Indeed, the transition from the DDG 51 Class of Destroyers to the DDG 1000 Class has been carefully planned to avoid costly workload dips at the shipyards. Infrastructure requirements unique to the new class of destroyers have already been implemented.

As detailed herein, the DDG 1000 Program has conducted an exhaustive review of the maturity of the DDG 1000 critical technologies and of the developmental command and control systems, weapon and sensor systems, and hull, mechanical and electrical systems. As such, the Navy believes that the cutting edge technologies and other developmental systems that DDG 1000 will bring to the Fleet are sufficiently mature to proceed with the start of ship construction.

It is the Navy's conclusion that the DDG 1000 program strikes the best balance between mitigating development risk and delivering capability required by the warfighter at the time the requirements were approved within cost and schedule. Based on this analysis, the Secretary of the Navy offers this report with his certification that the findings and results of the PRR support commencement of construction of the two lead ships of the DDG 1000 Class program.

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

ACTION MEMO

January 5, 2009

FOR: SECRETARY OF THE NAVY

FROM: Mr Sean J. Stackley, Assistant Secretary of the Navy (RD&A) JAN 7 2008

SUBJECT: DDG 1000 Start of Construction Approval and Congressional Notification

- Mr. Winter, I recommend you sign TAB A that (i) forwards to Congress the results of the Total Ship System (TSS) Production Readiness Review (PRR) of the ZUMWALT Class guided missile destroyer program (TAB B), and (ii) certifies that the findings of the PRR support commencement of construction in February 2009, of DDG 1000, the first lead ship of the program.
- The TSS PRR report provides the information described in Section 124 of the National Defense Authorization Act for Fiscal Year (FY) 2008, Public Law 110-181 (TAB C). Section 124 requires submission to Congress of a PRR concurrent with approval of the start of construction of the first ship of a major shipbuilding program. Section 124 does not apply to the DDG 1000 program because construction of the dual lead ships of this major shipbuilding program was approved before the date of the enactment of Section 124. Knowing, however, that Congress would like to receive the type of information described in Section 124 for the DDG 1000 program also, the Navy has prepared this DDG 1000 PRR.

RECOMMENDATION: Provide Congress with the DDG 1000 Zumwalt Class Destroyer Construction PRR results, along with your certification that the PRR findings support commencement of construction of DDG 1000 in February 2009.

Approve_____ Disapprove_____

13JAN 09

AASN
RELEASE
1/6M

COORDINATION: TAB D

Attachments:
As stated.

Prepared by: Ms. Allison Stiller, Deputy Assistant Secretary of the Navy for Ships Programs, (703) 697-1710

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the DDG 1000 program because this major shipbuilding program began before the date of the enactment of Section 124. Knowing, however, that Congress would like to receive the type of information for the DDG 1000 program also, the Navy has prepared this DDG 1000 production readiness review report.

I have approved the start of construction of ZUMWALT (DDG 1000), lead ship of the ZUMWALT Class guided missile destroyers The enclosed report supports this decision.

A similar letter has been sent to Chairmen Skelton, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the DDG 1000 program because this major shipbuilding program began before the date of the enactment of Section 124. Knowing, however, that Congress would like to receive the type of information for the DDG 1000 program also, the Navy has prepared this DDG 1000 production readiness review report.

I have approved the start of construction of ZUMWALT (DDG 1000), lead ship of the ZUMWALT Class guided missile destroyers The enclosed report supports this decision.

A similar letter has been sent to Chairmen Levin, Inouye, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6025

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the DDG 1000 program because this major shipbuilding program began before the date of the enactment of Section 124. Knowing, however, that Congress would like to receive the type of information for the DDG 1000 program also, the Navy has prepared this DDG 1000 production readiness review report.

I have approved the start of construction of ZUMWALT (DDG 1000), lead ship of the ZUMWALT Class guided missile destroyers The enclosed report supports this decision.

A similar letter has been sent to Chairmen Skelton, Levin, and Murtha. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 13, 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

Section 124 of the National Defense Authorization Act for 2008, Public Law 110-181, requires the Secretary of the Navy to provide to the congressional defense committees, concurrent with the start of construction on the first ship of a major shipbuilding program, a report on the results of any production readiness review. Public Law 110-181 further requires the Secretary to certify that the findings of any such review support commencement of construction. Section 124 does not apply to the DDG 1000 program because this major shipbuilding program began before the date of the enactment of Section 124. Knowing, however, that Congress would like to receive the type of information for the DDG 1000 program also, the Navy has prepared this DDG 1000 production readiness review report.

I have approved the start of construction of ZUMWALT (DDG 1000), lead ship of the ZUMWALT Class guided missile destroyers The enclosed report supports this decision.

A similar letter has been sent to Chairmen Skelton, Inouye, and Levin. As always, if I can be of further assistance, please let me know.

Sincerely,

Donald C. Winter

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member

COORDINATION PAGE

Office	Name	Phone Number	Date
PMS 500	CAPT James D. Syring	(202) 781-2532	December 1, 2008
PEO SHIPS	RADM William E. Landay	(202) 781-2941	December 1, 2008
PEO IWS	RDML Terry J. Benedict	(202) 781-2964	December 1, 2008
NAVSEA 05	RDML Thomas J. Eccles	(202) 781-1710	December 1, 2008
N86	CAPT Gene Black	(703) 692-4618	December 23, 2008
FM&C	Gloria Valdez	(703) 692-1688	December 22, 2008
DASN AGC	Ms. Katharine Carney	(703) 697-1642	December 19, 2008
DASN ALM	Mr. Dwayne Weaver	(703) 693-4073	December 24, 2008
OLA	CDR Shanti Sethi	(703) 695-1366	January 5, 2009
OLA	RADM M. Miller	(703) 695-1366	January 5, 2009
FMBE	LCDR Tadd Gorman	(703) 692-6726	January 5, 2009
SAL	CDR Gary Sharp	(703) 697-6935	January 7, 2009
FMBE	CAPT Tom McGovern	(703) 692-6735	January 9, 2009

NON CONCUR COMMENTS:

None.

MSC: Overseas Ship Repair 2008

Data from 13 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)	Final Contract/Repair Price (F1)	+/- Contracted Amount (F2)	Sched'd # of Days for Repair (G)	Estimated Work (in man days) (G)	Completed on Schedule? (G)	Reason (G)	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
Overseas Deployed	BOWDITCH (T-AGS)*	ROH	Sasebo Heavy Industries, Japan	61	2,581,830	2,402,420	(179,410)	61	3668	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	BOWDITCH (T-AGS)*	VRA	Maritime & Construction Mgmt Inc, Japan	13	285,250	231,230	(54,020)	13	355	Yes	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	CATAWBA (T-ATF)*	ROH	Bahrain Ship Repair, Bahrain	45	608,966	652,975	44,009	45	1728	YES	N/A	Manama, Bahrain	FFP (Comp)
VR	CATAWBA (T-ATF)*	VRA	Nico International, UAE	21	241,055	306,979	65,924	21	772	YES	N/A	Manama, Bahrain	FFP (Comp)
VR	CONCORD (T-AFS)	VRA	SES Marine, Singapore	15	36,274	123,374	87,100	15	400	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	EFFECTIVE (TAGOS)*	ROH	Keppel Shipyard, Singapore	35	2,943,850	2,697,720	(246,130)	45	10,263	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	EFFECTIVE (TAGOS)*	VRA	Sumitomo Heavy Industries in Naval Dock Japan	56	499,826	386,049	(113,777)	Emergency Rpr. No sked compl date	593	Emergency Rpr. No sked compl date	N/A	7th FLEET AOR	FFP (Comp)
VR	ERICSSON (TAO)	VRA	SES Marine, Singapore	17	107,869	152,075	44,206	17	578	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	ERICSSON (TAO)	VRA	San Denshi Kogyo Co LTD, Japan	19	55,467	138,109	82,642	19	251	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	FLINT (TAE)	VRA	Haedong Marine Service, Korea	15	59,815	128,193	58,378	15	366	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	HEEZEN (T-AGS)*	VRA	Jurong Shipyard, Singapore	18	574,644	599,257	24,613	18	2,280	Yes	N/A	7th FLEET AOR	FFP (Comp)
VR	HEEZEN (T-AGS)*	VRA	Maritime & Construction Mgmt Inc, Japan	20	162,680	556,585	393,905	20	854	Yes	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	HENSON (T-AGS)*	ROH	Jurong Shipyard, Singapore	49	1,894,257	1,866,266	(27,991)	47	7100	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	HENSON (T-AGS)*	VRA	Nico International, UAE	25	389,798	442,823	53,025	25	2,583	Yes	N/A	5th FLEET AOR	FFP (Comp)
Overseas Deployed	IMPECCABLE (TAGOS)*	ROH	Sembawang Shipyard, Singapore	45	2,291,680	2,296,957	5,077	45	8,738	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	INVINCIBLE (T-AGM)*	ROH	Sembawang Shipyard, Singapore	62	3,125,866	2,970,246	(155,620)	45	11,300	No	Invoked CAT B Wk Item to extend availability for sponsor equipment install. Chinese New Year	7th FLEET AOR	FFP (Comp)
VR	JOHN MCDONNELL (T-AGS)*	VRA	Maritime & Construction Mgmt Inc, Japan	24	278,200	246,120	(32,080)	24	378	Yes	N/A	7th FLEET AOR	FFP (Comp)
VR	KISKA (TAE)	VRA	Samgwang Marine, Korea	10	33,571	65,107	31,536	10	186	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	KISKA (TAE)	VRA	Samgwang Marine, Korea	14	58,490	72,168	13,678	14	206	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	LOYAL (T-AGOS)*	ROH	Keppel Shipyard, Singapore	45	3,389,720	3,436,641	46,921	45	13,074	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	MARY SEARS (T-AGS)*	VRA	Jurong Shipyard, Singapore	28	547,864	498,408	(49,456)	28	1,896	Yes	N/A	7th FLEET AOR	FFP (Comp)
VR	MARY SEARS (T-AGS)*	VRA	Maritime & Construction Mgmt Inc, Japan	22	342,443	258,073	(84,370)	22	396	Yes	N/A	7th FLEET AOR	FFP (Comp)
VR	NIAGARA FALLS (T-AFS)	VRA	Sembawang Shipyard, Singapore	35	1,138,393	1,203,650	65,257	35	4400	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	OBSERVATION ISLAND (T-AGM)*	ROH	Sembawang Shipyard, Singapore	59	3,906,360	4,195,751	289,391	45	15,962	No	Unscheduled boiler repairs, Desuperheater leak	7th FLEET AOR	FFP (Comp)
VR	PATHFINDER (T-AGS)*	VRA	Grandweld-Jebel Ali, UAE	18	363,465	371,150	7,685	18	2,165	Yes	N/A	5th FLEET AOR	FFP (Comp)
VR	PATHFINDER (T-AGS)*	VRA	Keppel, Norway	22	372,740	574,249	201,509	22	670	Yes	N/A	6th FLEET AOR	FFP (Comp)
VR	PAUL BUCK (T-AOT)	VRA	Hellenic Shipyards Skaramanga, Greece	35	44,000	131,303	87,303	28	120	No	Material Delay	6th FLEET AOR	FFP (Comp)
Overseas Deployed	PECOS (TAO)*	ROH	Sembawang Shipyard, Singapore	60	4,189,970	4,525,029	335,059	60	12,114	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	RAPPAHANNOCK (T-AO)*	ROH	Sembawang Shipyard, Singapore	60	3,158,046	3,512,020	353,974	60	11,300	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	RAPPAHANNOCK (T-AO)*	VRA	Subic Drydock, Philippines	12	35,693	52,763	17,071	12	154	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	RAPPAHANNOCK (T-AO)*	VRA	San Denshi Kogyo Co LTD, Japan	21	231,429	247,746	16,318	21	450	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	SAFEGUARD (T-ARS)*	VRA	Unithai Shipyard, Thailand	27	73,825	177,902	104,077	27	890	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	SAFEGUARD (T-ARS)*	VRA	Unithai Shipyard, Thailand	23	61,797	127,554	65,757	23	638	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	SAFEGUARD (T-ARS)*	ROH	Sasebo Heavy Industries, Japan	62	2,860,978	3,030,726	169,748	60	6335	NO	Habitability Mods	7th FLEET AOR	FFP (Comp)
VR	SALVOR (T-ARS)	VRA	Kwong Soon Engineering, Singapore	26	53,507	200,174	146,667	26	720	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	SHASTA (TAE)	VRA	Haedong Marine Service, Korea	19	50,630	147,266	96,636	19	421	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	SHASTA (TAE)	VRA	Samgwang Marine, Korea	14	272,240	421,191	148,951	14	1203	YES	N/A	7th FLEET AOR	FFP (Comp)
VR	TIPPECANOE (TAO)*	VRA	Unithai Shipyard, Thailand	13	44,515	156,077	111,562	13	500	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	TIPPECANOE (TAO)*	ROH	Sembawang Shipyard, Singapore	62	3,970,639	3,434,767	(535,872)	60	11,169	NO	Regulatory Issues	7th FLEET AOR	FFP (Comp)
Overseas Deployed	VICTORIOUS (T-AGOS)*	ROH	Keppel Shipyard, Singapore	46	2,063,620	2,193,954	130,334	45	8,347	YES	N/A	7th FLEET AOR	FFP (Comp)
Overseas Deployed	WALTER DIEHL (TAO)*	MTA	Sembawang Shipyard, Singapore	48	3,906,335	4,049,840	143,505	45	12,151	No	Cargo Piping Testing	7th FLEET AOR	FFP (Comp)
VR	WALTER DIEHL (TAO)*	VRA	Unithai Shipyard, Thailand	18	54,940	114,248	59,308	18	450	YES	N/A	7th FLEET AOR	FFP (Comp)
			TOTALS	**1,339**	**$ 47,372,737**	**$ 49,395,136**	**$ 2,022,399**	**1,245**	**158,164**				

Definitions and Notes

*	Data was not available.
CM	Continuous Maintenance
FDNF	Forward Deployed Naval Forces
MTA	Scheduled repair period without dry-docking
ROH	Scheduled shipyard repair period with dry-docking
VR	Voyage Repairs
VRA	Emergency repairs, corrective maintenance on mission or safety essential items, or scheduled maintenance necessary to ensure operational reliability

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	ABRAHAM LINCOLN (CVN)	VR	GRANDWELD, DUBAI UAE	4		4,724.00				Y		EVERETT, WA	Competitive
VR	ANZIO (CG)	V/R	BABCOCK MARINE LTD, FASLANE SCOTLAND	3		$6,734.58						NORFOLK, VA	Competitive
FDNF	ARDENT (MCM)	VR	AFI, MANAMA BAHRAIN	3		213.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	AFI, MANAMA BAHRAIN			400.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	AFI, MANAMA BAHRAIN			266.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			3,760.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			10,640.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	AL JAZEERA, MANAMA BAHRAIN			6,443.20				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	AL JAZEERA, MANAMA BAHRAIN			1,560.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	AL JAZEERA, MANAMA BAHRAIN	56		26,483.73				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN	3		1,544.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN	10		1,226.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN	11		1,200.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN	13		6,613.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN	15		5,600.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN	16		1,208.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN	18		6,060.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN	24		1,805.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN	37		16,240.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			28,943.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			23,200.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			1,800.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			2,480.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			8,980.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			1,515.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			28,480.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			3,120.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	ASRY, MANAMA BAHRAIN			1,013.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,506.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,360.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			3,210.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			2,613.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			(3,618.67)				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			15,920.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			2,400.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,280.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			7,253.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,013.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN	5		5,853.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN	5		2,413.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	BASREC, MANAMA BAHRAIN	10		3,200.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	SRA	BASREC, MANAMA BAHRAIN	91		1,748,719.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	BASREC, MANAMA BAHRAIN			2,480.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	BASREC, MANAMA BAHRAIN			3,200.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	BASREC, MANAMA BAHRAIN			181.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	BASREC, MANAMA BAHRAIN			146.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,040.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,728.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,226.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,960.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			746.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			266.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			800.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	BASREC, MANAMA BAHRAIN			693.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	SRA	ELITE, MANAMA BAHRAIN			381,960.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	FDGM, MANAMA BAHRAIN			20,096.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	FDGM, MANAMA BAHRAIN			6,828.48				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	SRA	FDGM, MANAMA BAHRAIN			85,863.47				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	FELMAR, MANAMA BAHRAIN	6		24,800.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	FELMAR, MANAMA BAHRAIN			(14,520.00)				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	FELMAR, MANAMA BAHRAIN			693.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	6		1,266.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN	38		4,000.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			3,024.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			1,120.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			2,533.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			(2,533.33)				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			173.33				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			1,666.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	3		18,266.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			986.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			10,000.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,080.00				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,978.67				Y		PACFLT	Competitive
FDNF	ARDENT (MCM)	VR	SYSTEMS & TECH, MANAMA BAHRAIN	11		695.00				Y		PACFLT	Competitive
VR	ARLEIGH BURKE (DDG)	V/R	CARRINO GIOVANNI, NAPLES ITALY	3		$1,574.04						NORFOLK, VA	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	ARLEIGH BURKE (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN	2		733.33				Y		NORFOLK, VA	Competitive
VR	ARLEIGH BURKE (DDG)	V/R	MULITMARINE SRVCS INC, LIMASSOL CYPRUS	4		$3,640.00						NORFOLK, VA	Competitive
VR	ARLEIGH BURKE (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	8		10,000.00				Y		NORFOLK, VA	Competitive
VR	ARLEIGH BURKE (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			693.33				Y		NORFOLK, VA	Competitive
VR	ARLEIGH BURKE (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			520.00				Y		NORFOLK, VA	Competitive
VR	ARLEIGH BURKE (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			653.33				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	V/R	CAMMELL LAIRD LTD, GIBRALTAR GREAT BRITAIN	5		$18,053.55						NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	V/R	ISRAEL SHIPYARDS LTD, HAIFA ISRAEL	6		$20,500.00						NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN	3		1,533.33				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			1,800.00				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			2,333.33				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			1,533.33				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			933.33				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	NICO, DUBAI UAE	3		1,690.00				Y		NORFOLK, VA	Competitive
VR	ASHLAND (LSD 41)	VR	NICO, DUBAI UAE			1,402.00				Y		NORFOLK, VA	Competitive
VR	BAINBRIDGE (DDG)	V/R	CARRINO GIOVANNI, NAPLES ITALY	3		$11,424.20						NORFOLK, VA	Competitive
VR	BARRY (DDG)	V/R	FORTH VIBRATION SRVC, FASLANE SCOTLAND	14		$10,401.59						NORFOLK, VA	Competitive
VR	BENFOLD (DDG)	VR	AFI, MANAMA BAHRAIN			533.33				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	AFI, MANAMA BAHRAIN	2		200.00				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	AIRMECH, MANAMA BAHRAIN			10,018.67				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	AIRMECH, MANAMA BAHRAIN			2,565.33				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	ASRY, MANAMA BAHRAIN			5,893.33				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	ASRY, MANAMA BAHRAIN			3,389.33				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	DUBAI DRYDOCKS, DUBAI UAE	4		2,430.00				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	INCHCAPE, MANAMA BAHRAIN			7,308.34				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	INCHCAPE, MANAMA BAHRAIN			11,173.90				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN	10		1,266.66				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			3,280.00				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,266.67				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,266.67				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			10,000.00				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			960.00				Y		SAN DIEGO, CA	Competitive
VR	BENFOLD (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			4,140.00				Y		SAN DIEGO, CA	Competitive
VR	BLUE RIDGE (LCC)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	4		$35,000.00						YOKOSUKA, JAPAN	
VR	BLUE RIDGE (LCC)	VR	SES MARINE SERVICES PTE LTD, SINGAPORE			$4,125.00						YOKOSUKA, JAPAN	
VR	BLUE RIDGE (LCC)	VR	SING SENG GUAN, SINGAPORE	12		$1,851.00						YOKOSUKA, JAPAN	
VR	BONHOMME RICHARD (LHD)	VR	AUSTINDO WA PTY LTD, FREMANTLE AUSTRALIA	5		$85,800.00						SAN DIEGO, CA	
VR	BULKELEY (DDG)	V/R	ELEFSIS SHIPYARDS, SOUDA BAY GREECE	4		$19,372.81						NORFOLK, VA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	ASRY, MANAMA BAHRAIN			900.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	ASRY, MANAMA BAHRAIN			13,333.33				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	BASREC, MANAMA BAHRAIN			3,600.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	BASREC, MANAMA BAHRAIN			640.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	BASREC, MANAMA BAHRAIN			1,600.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	BASREC, MANAMA BAHRAIN			1,386.67				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	BASREC, MANAMA BAHRAIN			480.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	INCHCAPE, MANAMA BAHRAIN			267.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	3		1,000.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,666.67				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			853.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	4		2,560.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	4		1,800.00				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			(1,533.33)				Y		SAN DIEGO, CA	Competitive
VR	CAPE ST. GEORGE (CG)	VR	SES MARINE SERVICES PTE LTD, SINGAPORE	2		$6,300.00						SAN DIEGO, CA	
VR	CAPE ST. GEORGE (CG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	4		16,933.00				Y		SAN DIEGO, CA	Competitive
VR	CARR (FFG)	VR	ASRY, MANAMA BAHRAIN	4		1,440.00				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	BASREC, MANAMA BAHRAIN			960.00				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	BASREC, MANAMA BAHRAIN	25		8,856.00				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	FELMAR, MANAMA BAHRAIN			500.00				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	GRANDWELD, Dubai UAE			4,200.00				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	GRANDWELD, Dubai UAE	4		440.00				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN	7		933.33				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN	4		1,333.33				Y		NORFOLK, VA	Competitive
VR	CARR (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,133.33				Y		NORFOLK, VA	Competitive
VR	CHANCELLORSVILLE (CG)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, PORT KELANG MALAYSIA	5		$15,803.68						SAN DIEGO, CA	
VR	CHANCELLORSVILLE (CG)	VR	WANG TAK ENGINEERING & SHIPBUILDING CO. LTD, HONG KONG PRC	5		$8,000.00						SAN DIEGO, CA	
FDNF	CHINOOK (PC 1)	CM	AFI, MANAMA BAHRAIN	3		106.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	AFI, MANAMA BAHRAIN	7		266.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	VR	AFI, MANAMA BAHRAIN	8		640.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	AFI, MANAMA BAHRAIN	9		133.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	AFI, MANAMA BAHRAIN			1,706.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	AFI, MANAMA BAHRAIN			133.33				Y		LANTFLT	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	CHINOOK (PC 1)	CM	AFI, MANAMA BAHRAIN			400.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			933.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			1,520.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ARABIAN INTERNATL, MANAMA BAHRAIN	1		533.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN	2		6,453.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN	18		6,285.20				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN	20		2,880.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			4,800.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,824.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,706.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,653.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			480.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			3,200.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,168.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			794.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			5,869.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,432.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			972.80				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			14,918.80				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			532.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			912.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			5,542.93				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			17,105.07				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			40,432.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,512.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			(12,000.00)				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,001.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,705.60				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,029.20				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,095.07				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	ASRY, MANAMA BAHRAIN			9,826.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN	4		5,354.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN	6		960.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN	8		960.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN	20		3,226.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	VR	BASREC, MANAMA BAHRAIN			4,120.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	VR	BASREC, MANAMA BAHRAIN			3,986.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN			3,000.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN			3,280.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN			2,413.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN			2,416.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	BASREC, MANAMA BAHRAIN			10,018.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	VR	FDGM, MANAMA BAHRAIN	4		135.49				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	VR	FDGM, MANAMA BAHRAIN	6		2,276.16				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	VR	FDGM, MANAMA BAHRAIN			296.08				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	FDGM, MANAMA BAHRAIN			1,183.92				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	FELMAR, MANAMA BAHRAIN	2		880.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	FELMAR, MANAMA BAHRAIN			6,666.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	FELMAR, MANAMA BAHRAIN			1,056.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	FELMAR, MANAMA BAHRAIN			6,933.33				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			512.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			632.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			120.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			120.00				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,714.67				Y		LANTFLT	Competitive
FDNF	CHINOOK (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			5,466.67				Y		LANTFLT	Competitive
VR	CLEVELAND (LPD 4)	VR	ASRY, MANAMA BAHRAIN	3		3,106.67				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	ASRY, MANAMA BAHRAIN			1,546.67				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	ASRY, MANAMA BAHRAIN			640.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN	13		17,826.67				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN	26		960.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN	28		960.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN			960.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN			39,064.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN			1,906.67				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	BASREC, MANAMA BAHRAIN			1,624.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	FELMAR, DUBAI UAE			13,390.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	FELMAR, DUBAI UAE			14,400.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			3,952.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			3,776.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			800.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	HULL DIVING SERVICES, MANAMA BAHRAIN			8,726.67				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN	5		3,066.67				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN	8		400.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN			1,266.67				Y		SAN DIEGO, CA	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	CLEVELAND (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN			2,200.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	NICO, DUBAI UAE	5		909.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	NICO, DUBAI UAE			2,105.00				Y		SAN DIEGO, CA	Competitive
VR	CLEVELAND (LPD 4)	VR	PLASTIC POWDER COATINGS, DUBAI UAE			8,857.00				Y		SAN DIEGO, CA	Competitive
VR	COLE (DDG)	VR	FELMAR, DUBAI UAE			8,692.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	FELMAR, DUBAI UAE			4,160.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	FELMAR, DUBAI UAE			3,782.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	FELMAR, DUBAI UAE			4,781.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	FELMAR, DUBAI UAE			9,637.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	FELMAR, DUBAI UAE			4,776.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE	10		1,224.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			1,768.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			884.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			776.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			2,872.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			500.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			1,264.00				Y		NORFOLK, VA	Competitive
VR	COLE (DDG)	VR	GRANDWELD, DUBAI UAE			9,400.00				Y		NORFOLK, VA	Competitive
VR	COWPENS (CG)	VR	CYCLECT SINGAPORE PTE LTD, SINGAPORE	7		$1,876.31						PACIFIC FLEET	
VR	CURTIS WILBUR (DDG)	VR	BRIGANTINE SERVICES LIMITED, KOTA KINABALU MALAYSIA	3		$8,900.00						PACIFIC FLEET	
VR	CURTS (FFG)	VR	AFI, MANAMA BAHRAIN			266.67				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	ASRY, MANAMA BAHRAIN			6,200.00				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	BASREC, MANAMA BAHRAIN	5		4,040.00				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	BASREC, MANAMA BAHRAIN			(3,906.67)				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	BASREC, MANAMA BAHRAIN			400.00				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	BASREC, MANAMA BAHRAIN			1,784.00				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	FELMAR, MANAMA BAHRAIN			7,000.00				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	3		8,693.33				Y		SAN DIEGO, CA	Competitive
VR	CURTS (FFG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			6,800.00				Y		SAN DIEGO, CA	Competitive
VR	DALLAS (WHEC)	V/R	CAMMELL LAIRD LTD, GIBRALTAR GREAT BRITAIN	7		$137,979.29						NORFOLK, VA	Competitive
VR	DECATUR (DDG)	VR	SES MARINE SERVICES PTE LTD, SINGAPORE	5		$9,239.60						SAN DIEGO, CA	
VR	DECATUR (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	4		8,000.00				Y		SAN DIEGO, CA	Competitive
VR	DECATUR (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			2,666.67				Y		SAN DIEGO, CA	Competitive
VR	DENVER (LPD 4)	VR	AUSTINDO WA PTY LTD, Fremantle Australia	5		$60,340.00						SAN DIEGO, CA	
FDNF	DEXTROUS (MCM)	CM	AFI, MANAMA BAHRAIN	4		320.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	AFI, MANAMA BAHRAIN			160.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AFI, MANAMA BAHRAIN			66.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AFI, MANAMA BAHRAIN			160.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AFI, MANAMA BAHRAIN			1,066.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AFI, MANAMA BAHRAIN			3,946.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AIRMECH, MANAMA BAHRAIN	1		800.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	AIRMECH, MANAMA BAHRAIN	15		1,920.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	AIRMECH, MANAMA BAHRAIN			3,466.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AIRMECH, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AIRMECH, MANAMA BAHRAIN			2,653.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AIRMECH, MANAMA BAHRAIN			6,832.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AIRMECH, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	AIRMECH, MANAMA BAHRAIN			2,893.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN	5		1,460.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN	12		560.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN	17		1,333.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	ASRY, MANAMA BAHRAIN			3,226.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	ASRY, MANAMA BAHRAIN			2,960.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	ASRY, MANAMA BAHRAIN			1,834.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	ASRY, MANAMA BAHRAIN			9,093.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			2,613.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			3,200.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			1,733.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			(1,733.33)				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			1,200.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			5,120.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			3,520.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			5,354.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			5,013.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			2,613.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			1,813.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			520.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			2,197.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			(2,197.33)				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			3,456.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			3,413.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			2,205.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			560.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	ASRY, MANAMA BAHRAIN			7,849.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN	2		613.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN	2		3,032.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN	5		480.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN	6		1,994.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN	9		7,981.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN	16		1,989.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN	20		3,253.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN	21		600.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN	31		949.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			258.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN			578.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,173.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,554.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN			2,386.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN			4,021.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			360.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			426.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			224.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			2,013.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			208.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,586.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			888.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			522.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			2,600.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN			12,010.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,005.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,312.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			709.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			3,202.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			778.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			346.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			3,274.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			(674.67)				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			2,986.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			954.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,880.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,040.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,040.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,280.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	BASREC, MANAMA BAHRAIN			21,896.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			(522.67)				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	BASREC, MANAMA BAHRAIN			1,066.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	FDGM, MANAMA BAHRAIN	2		406.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	FDGM, MANAMA BAHRAIN			596.04				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	FELMAR, MANAMA BAHRAIN			2,400.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	FELMAR, MANAMA BAHRAIN			352.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	FELMAR, MANAMA BAHRAIN			8,124.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	FELMAR, MANAMA BAHRAIN			800.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	HULL DIVING, MANAMA BAHRAIN	6		11,916.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	HULL DIVING, MANAMA BAHRAIN			5,866.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	HYDROLINK, MANAMA BAHRAIN	3		24,533.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	HYDROLINK, MANAMA BAHRAIN	16		(4,400.00)				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	INCHCAPE, MANAMA BAHRAIN			600.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	2		1,133.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	12		1,266.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			120.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			1,653.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			506.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			853.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			320.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	3		10,000.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	3		2,666.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	7		2,000.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN	36		3,333.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,373.33				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,946.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,600.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			400.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			11,200.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,586.67				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,600.00				Y		PACIFIC FLEET	Competitive
FDNF	DEXTROUS (MCM)	VR	SULTAN, MANAMA BAHRAIN	7		1,600.00				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	DEXTROUS (MCM)	VR	SULTAN, MANAMA BAHRAIN	27		12,600.00				Y		PACIFIC FLEET	Competitive
VR	DOYLE (FFG)	V/R	UMC INTERNATIONAL, DAKAR SENEGAL	8		$36,170.41						MAYPORT, FL	Competitive
VR	DUBUQUE (LPD 4)	VR	AFI, MANAMA BAHRAIN			1,440.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	AFI, MANAMA BAHRAIN			533.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	AIRMECH, MANAMA BAHRAIN			8,320.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	AIRMECH, MANAMA BAHRAIN			2,133.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN	4		1,653.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN	12		3,600.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			3,413.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			8,217.60				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			6,400.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			1,600.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			(602.67)				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			14,666.67				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			6,072.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			1,520.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			7,456.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			2,133.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			1,208.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	GOLTENS, MANAMA BAHRAIN			100.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	HULL DIVING, MANAMA BAHRAIN			9,333.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	HULL DIVING, MANAMA BAHRAIN			533.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	HULL DIVING, MANAMA BAHRAIN			9,333.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	HULL DIVING, MANAMA BAHRAIN			10,666.67				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	HULL DIVING, MANAMA BAHRAIN			(5,013.33)				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	INCHCAPE, MANAMA BAHRAIN			843.00				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN	1		(1,165.00)				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN	5		853.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN	6		2,333.33				Y		SAN DIEGO, CA	Competitive
VR	DUBUQUE (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN			1,800.00				Y		SAN DIEGO, CA	Competitive
VR	ELROD (FFG)	V/R	CARRINO GIOVANNI, NAPLES ITALY	5		$1,454.41						NORFOLK, VA	Competitive
VR	ELROD (FFG)	V/R	CARRINO GIOVANNI, NAPLES ITALY	0		$7,618.96						NORFOLK, VA	Competitive
FDNF	FIREBOLT (PC 1)	CM	AFI, MANAMA BAHRAIN	41		186.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	AFI, MANAMA BAHRAIN			400.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	AFI, MANAMA BAHRAIN			160.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	AFI, MANAMA BAHRAIN			320.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	AFI, MANAMA BAHRAIN			213.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			549.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	VR	ASRY, MANAMA BAHRAIN	5		5,120.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN	5		704.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN	15		6,514.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN	9		3,200.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	VR	ASRY, MANAMA BAHRAIN			381.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,368.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			400.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			7,466.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			9,373.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			266.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			4,149.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			346.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,450.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,453.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			5,280.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,200.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN	3		3,090.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN	3		440.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN	6		640.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	VR	BASREC, MANAMA BAHRAIN	7		3,000.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN	9		960.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	VR	BASREC, MANAMA BAHRAIN			2,586.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN			2,360.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN			4,994.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN			293.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN			2,213.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN			13,072.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	BASREC, MANAMA BAHRAIN			933.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	FDGM, MANAMA BAHRAIN	9		9,604.64				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	FELMAR, MANAMA BAHRAIN			6,424.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	FELMAR, MANAMA BAHRAIN			668.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	FELMAR, MANAMA BAHRAIN			6,922.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	FELMAR, MANAMA BAHRAIN			362.66				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			1,155.52				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			200.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			586.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			320.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			120.00				Y		ATLANTIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			360.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			4,666.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN	19		7,733.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			933.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			666.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			493.33				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,866.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,666.67				Y		ATLANTIC FLEET	Competitive
FDNF	FIREBOLT (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			12,266.67				Y		ATLANTIC FLEET	Competitive
VR	FORD (FFG)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD/SES MARINE SERVICES PTE LTD, SINGAPORE	7		$44,000.00						EVERETT, WA	
VR	FORD (FFG)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	5		$20,200.00						EVERETT, WA	
VR	FORD/TORTUGA (FFG)	VR	CAPS AUSTRALIA PTY LTD, SINGAPORE	14		$70,000.00						EVERETT, WA/PACIFIC FLEET	
VR	FORREST SHERMAN (DDG)	V/R	T. RUIZ ROSANO, ROTA SPAIN	9		$48,092.99						NORFOLK, VA	Competitive
VR	FORT MCHENRY (LSD 41)	V/R	CARRINO GIOVANNI, NAPLES ITALY	15		$12,863.54						NORFOLK, VA	Competitive
VR	FORT MCHENRY (LSD 41)	V/R	INCHCAPE SHIPPING SRVC, TAKORADI GHANA	6		$8,545.50						NORFOLK, VA	Competitive
VR	FORT MCHENRY (LSD 41)	V/R	T. RUIZ ROSANO, ROTA SPAIN	6		$11,064.29						NORFOLK, VA	Competitive
VR	GERMANTOWN (LSD 41)	VR	AFI, MANAMA BAHRAIN	15		426.67				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	ASRY, MANAMA BAHRAIN			1,346.67				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	CYCLECT SINGAPORE PTE LTD, SINGAPORE	5		$2,500.00						SAN DIEGO, CA	
VR	GERMANTOWN (LSD 41)	VR	FELMAR, MANAMA BAHRAIN			1,768.00				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	FELMAR, MANAMA BAHRAIN			312.00				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	4		$3,000.00						SAN DIEGO, CA	
VR	GERMANTOWN (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN	4		1,680.00				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN	4		466.67				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN	5		400.00				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			6,800.00				Y		SAN DIEGO, CA	Competitive
VR	GERMANTOWN (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			173.33				Y		SAN DIEGO, CA	Competitive
VR	GETTYSBURG (CG)	VR	AIRMECH, MANAMA BAHRAIN			4,898.67				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	ASRY, MANAMA BAHRAIN	8		(1,578.67)				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			1,120.00				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			2,808.00				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	DUBAI DRYDOCKS, DUBAI UAE			1,355.00				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	DUBAI DRYDOCKS, DUBAI UAE			(635.00)				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	FELMAR, DUBAI UAE			623.00				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	NICO, DUBAI UAE	18		480.00				Y		MAYPORT, FL	Competitive
VR	GETTYSBURG (CG)	VR	NICO, DUBAI UAE			1,400.00				Y		MAYPORT, FL	Competitive
FDNF	GLADIATOR (MCM)	CM	AFI, MANAMA BAHRAIN	1		293.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AFI, MANAMA BAHRAIN	2		333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AFI, MANAMA BAHRAIN	3		1,133.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AFI, MANAMA BAHRAIN			4,746.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			3,533.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			253.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,296.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			18,333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			2,093.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			13,066.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			538.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,248.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			3,040.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	AIRMECH, MANAMA BAHRAIN			466.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN	1		2,400.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN	1		3,000.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN	2		173.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ASRY, MANAMA BAHRAIN	3		741.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN	3		2,080.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ASRY, MANAMA BAHRAIN	5		1,567.68				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ASRY, MANAMA BAHRAIN	7		613.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN	10		10,626.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ASRY, MANAMA BAHRAIN	11		7,197.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN	27		821.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ASRY, MANAMA BAHRAIN			312.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			3,200.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			3,700.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ASRY, MANAMA BAHRAIN			3,733.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			106.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,280.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			13,066.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			893.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,546.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			2,186.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,066.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			2,134.40				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			736.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			441.60				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			4,416.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			(4,416.00)				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			2,208.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			4,416.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			883.20				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			573.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			515.20				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			731.09				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,840.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			3,568.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,668.27				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			2,404.27				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,472.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			7,114.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			2,400.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			269.87				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,472.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			343.47				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			2,944.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			220.80				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			515.20				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	ASRY, MANAMA BAHRAIN			1,005.87				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	BASREC, MANAMA BAHRAIN	1		1,333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	4		1,173.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	BASREC, MANAMA BAHRAIN	4		693.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	5		480.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	5		3,146.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	7		1,920.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	11		821.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	12		120.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	15		1,872.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN	19		4,453.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	SRA	BASREC, MANAMA BAHRAIN	120		3,405,155.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	BASREC, MANAMA BAHRAIN			522.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			173.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			3,952.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			797.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			4,800.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			2,080.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			512.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			2,101.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,280.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			18.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			650.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			453.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			5,600.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,013.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			552.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			320.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,680.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			2,928.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			416.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,933.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			906.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,933.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,306.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			1,653.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			22,453.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	BASREC, MANAMA BAHRAIN			2,173.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	SRA	ELITE, MANAMA BAHRAIN			327,120.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	FDGM, MANAMA BAHRAIN	2		1,199.37				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	GLADIATOR (MCM)	VR	FDGM, MANAMA BAHRAIN	8		569.04				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	FDGM, MANAMA BAHRAIN			13,533.96				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	FDGM, MANAMA BAHRAIN			950.59				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	FELMAR, MANAMA BAHRAIN			1,976.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	FELMAR, MANAMA BAHRAIN			5,000.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	FELMAR, MANAMA BAHRAIN			1,066.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	FELMAR, MANAMA BAHRAIN			800.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	FELMAR, MANAMA BAHRAIN			3,200.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	HULL DIVING, MANAMA BAHRAIN	1		11,233.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	HYDROLINK, MANAMA BAHRAIN			1,133.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	INCHCAPE, MANAMA BAHRAIN			1,970.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	3		1,266.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	7		5,973.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	6		1,120.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	8		(253.33)				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			853.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN			1,800.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			666.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			1,506.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			866.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			1,613.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			733.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			1,800.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			666.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			(333.33)				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			200.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			586.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			4,586.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			586.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	ROLLS ROYCE, MANAMA BAHRAIN			4,472.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	1		4,652.27				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN	1		5,200.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	2		2,333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	4		1,866.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	4		4,453.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	7		1,573.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	10		5,786.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN	13		973.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	14		5,800.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			1,786.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			2,133.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			1,866.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			600.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			368.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			4,693.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			1,413.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			2,613.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			(586.67)				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,600.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			400.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			400.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			7,146.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,186.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			320.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,029.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			466.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			853.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			362.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,600.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			826.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			794.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,533.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			5,226.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,000.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,586.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			400.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			122.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			3,333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			784.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,972.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			5,600.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			3,333.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			7,893.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			770.67				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			506.67				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,933.33				Y		PACIFIC FLEET	Competitive
FDNF	GLADIATOR (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			(266.67)				Y		PACIFIC FLEET	Competitive
VR	GRIDLEY (DDG)	VR	FOSTERS ASIA PACIFIC PTE LTD, PORT KELANG MALAYSIA	5		8,203.24						SAN DIEGO, CA	
VR	GUARDIAN (MCM)	VR	KWONG SOON ENGINEERING CO (PTE) LTD, SINGAPORE	3		7,000.00						PACIFIC FLEET	
VR	GUNSTON HALL (LSD 41)	VR	AFI, MANAMA BAHRAIN			133.33				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	AFI, MANAMA BAHRAIN			213.33				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	AFI, MANAMA BAHRAIN			133.33				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	ASRY, MANAMA BAHRAIN	5		1,315.20				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	ASRY, MANAMA BAHRAIN			(1,112.53)				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	ASRY, MANAMA BAHRAIN			1,984.80				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	ASRY, MANAMA BAHRAIN			642.67				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	FELMAR, MANAMA BAHRAIN			9,146.67				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	FELMAR, MANAMA BAHRAIN			8,178.67				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			666.67				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN			960.00				Y		NORFOLK, VA	Competitive
VR	GUNSTON HALL (LSD 41)	VR	T. RUIZ ROSANO, ROTA SPAIN	3		34,483.59						NORFOLK, VA	Competitive
VR	HARPERS FERRY (LSD 49)	VR	MARUNDA UTAMA ENGINEERING PTE LTD, SINGAPORE	14		27,700.00						PACIFIC FLEET	
VR	HARPERS FERRY (LSD 49)	VR	MARUNDA UTAMA ENGINEERING PTE LTD, SINGAPORE			8,000.00						PACIFIC FLEET	
VR	HARRY S TRUMAN (CVN 68)	VR	GRANDWELD, DUBAI UAE	3		4,600.00				Y		NORFOLK, VA	Competitive
VR	HIGGINS (DDG)	VR	BRIGANTINE SERVICES LIMITED/ FOSTERS ASIA PACIFIC PTE LTD, HONG KONG PRC	5		15,320.00						SAN DIEGO, CA	
VR	HOPPER (DDG)	VR	AIRMECH, MANAMA BAHRAIN	7		413.33				Y		PEARL HARBOR, HI	Competitive
VR	HOPPER (DDG)	VR	AIRMECH, MANAMA BAHRAIN			4,213.33				Y		PEARL HARBOR, HI	Competitive
VR	HOPPER (DDG)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	5		$11,903.22						PEARL HARBOR, HI	
VR	HOPPER (DDG)	VR	FELMAR, MANAMA BAHRAIN			2,172.00				Y		PEARL HARBOR, HI	Competitive
VR	HOPPER (DDG)	VR	FELMAR, MANAMA BAHRAIN			2,000.00				Y		PEARL HARBOR, HI	Competitive
VR	HOWARD (DDG)	VR	BASREC, MANAMA BAHRAIN	3		1,200.00				Y		SAN DIEGO, CA	Competitive
VR	HOWARD (DDG)	VR	BASREC, MANAMA BAHRAIN	4		960.00				Y		SAN DIEGO, CA	Competitive
VR	HOWARD (DDG)	VR	BASREC, MANAMA BAHRAIN	18		22,808.00				Y		SAN DIEGO, CA	Competitive
VR	HOWARD (DDG)	VR	BASREC, MANAMA BAHRAIN			11,368.00				Y		SAN DIEGO, CA	Competitive
VR	HUE CITY (CG)	VR	AFI, MANAMA BAHRAIN	4		560.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	AIRMECH, MANAMA BAHRAIN	4		10,826.67				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	AIRMECH, MANAMA BAHRAIN			(10,826.67)				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	ASRY, MANAMA BAHRAIN	3		2,453.33				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	BASREC, MANAMA BAHRAIN	6		1,813.33				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	BASREC, MANAMA BAHRAIN			986.67				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	FELMAR, DUBAI UAE	5		1,600.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	FELMAR, DUBAI UAE			18,350.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	FELMAR, DUBAI UAE			5,984.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	GRANDWELD, DUBAI UAE			300.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	GRANDWELD, DUBAI UAE			1,140.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	GRANDWELD, DUBAI UAE			488.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	NICO, DUBAI UAE	9		438.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	SCAMP MIDDLE EAST, DUBAI UAE			1,200.00				Y		MAYPORT, FL	Competitive
VR	HUE CITY (CG)	VR	SCAMP MIDDLE EAST, DUBAI UAE			1,200.00				Y		MAYPORT, FL	Competitive
VR	INGRAHAM (FFG)	VR	FELMAR, DUBAI UAE			5,945.00				Y		EVERETT, WA	Competitive
VR	INGRAHAM (FFG)	VR	FELMAR, DUBAI UAE			12,250.00				Y		EVERETT, WA	Competitive
VR	INGRAHAM (FFG)	VR	GRANDWELD, DUBAI UAE	7		964.00				Y		EVERETT, WA	Competitive
VR	INGRAHAM (FFG)	VR	GRANDWELD, DUBAI UAE			500.00				Y		EVERETT, WA	Competitive
VR	INGRAHAM (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN	3		800.00				Y		EVERETT, WA	Competitive
VR	INGRAHAM (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN	11		1,800.00				Y		EVERETT, WA	Competitive
VR	JARRETT (FFG)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD/GLENN DEFENSE MARINE (ASIA) PTE LTD, SINGAPORE	7		$166,000.00						SAN DIEGO, CA	
VR	JOHN PAUL JONES (DDG)	VR	GUAM SHIPYARD, AGANA GUAM	6		$50,000.00						SAN DIEGO, CA	
VR	JUNEAU (LPD 4)	VR	BRIGANTINE SERVICES LIMITED, HONG KONG PRC	4		$200.00						N/A	
VR	JUNEAU (LPD 4)	VR	UNITHAI SHIPYARD & ENGINEERING LTD, CHUK SAMET THAILAND	1		$1,850.00						N/A	
VR	KEARSARGE (LHD)	VR	FELMAR, DUBAI UAE	6		14,952.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	FELMAR, DUBAI UAE			24,823.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	FELMAR, DUBAI UAE			7,700.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	FELMAR, DUBAI UAE			13,554.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	GRANDWELD, DUBAI UAE	6		1,620.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	GRANDWELD, DUBAI UAE			1,000.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	GRANDWELD, DUBAI UAE			3,270.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	GRANDWELD, DUBAI UAE			2,500.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	UMC, DUBAI UAE			4,690.00				Y		NORFOLK, VA	Competitive
VR	KEARSARGE (LHD)	VR	UMC, DUBAI UAE			2,670.00				Y		NORFOLK, VA	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	MCCAMPBELL (DDG)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	10		$5,700.00						PACIFIC FLEET	
VR	MCCAMPBELL (DDG)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD/UNDERWATER CONTRACTOR PTE LTD, SINGAPORE	8		$12,300.00						PACIFIC FLEET	
VR	MCCAMPBELL (DDG)	VR	UNDERWATER CONTRACTOR PTE LTD, SINGAPORE	1		$3,500.00						PACIFIC FLEET	
VR	MKV 951/952	VR	BASREC, MANAMA BAHRAIN			1,413.33				Y		N/A	Competitive
VR	MKV 951/952	VR	BASREC, MANAMA BAHRAIN			6,133.33				Y		N/A	Competitive
VR	MKV 951/952	VR	BASREC, MANAMA BAHRAIN			2,080.00				Y		N/A	Competitive
VR	MKV 951/952	VR	BASREC, MANAMA BAHRAIN			2,184.00				Y		N/A	Competitive
VR	MKV 952	VR	ASRY, MANAMA BAHRAIN			3,384.00				Y		N/A	Competitive
VR	MKV 975/976	VR	AIRMECH, MANAMA BAHRAIN			560.00				Y		N/A	Competitive
VR	MKV 975/976	VR	ASRY, MANAMA BAHRAIN			4,010.67				Y		N/A	Competitive
VR	MKV 975/976	VR	ASRY, MANAMA BAHRAIN			(120.00)				Y		N/A	Competitive
VR	MKV 975/976	VR	ASRY, MANAMA BAHRAIN			5,794.67				Y		N/A	Competitive
VR	MKV 975/976	VR	BASREC, MANAMA BAHRAIN			2,666.67				Y		N/A	Competitive
VR	MKV 975/976	VR	BASREC, MANAMA BAHRAIN			1,800.00				Y		N/A	Competitive
VR	MKV Craft SBT 12	VR	KEPPEL CEBU SHIPYARD, INC, CEBU PHILIPPINES	4		$5,270.00						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	KEPPEL CEBU SHIPYARD, INC, CEBU PHILIPPINES	12		$60,614.00						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	KEPPEL CEBU SHIPYARD, INC, CEBU PHILIPPINES	14		$61,616.00						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	KEPPEL CEBU SHIPYARD, INC, CEBU PHILIPPINES	16		$85,700.00						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	KEPPEL CEBU SHIPYARD, INC, CEBU PHILIPPINES	16		$32,000.00						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	VISION AIR AND SEA SERVICES, CEBU PHILIPPINES	5		32,000.00						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	VISION AIR AND SEA SERVICES, CEBU PHILIPPINES	8		$24,752.50						SAN DIEGO, CA	
VR	MKV Craft SBT 12	VR	VISION AIR AND SEA SERVICES, CEBU PHILIPPINES	9		25,792.50						SAN DIEGO, CA	
VR	MOBILE BAY (CG)	VR	CYCLECT SINGAPORE PTE LTD, SINGAPORE	3		$604.86						SAN DIEGO, CA	
VR	MOBILE BAY (CG)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	5		$20,754.00						SAN DIEGO, CA	
VR	MOMSEN (DDG)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	7		$31,036.91						EVERETT, WA	
VR	MOMSEN (DDG)	VR	FELMAR, DUBAI UAE	4		7,796.00				Y		EVERETT, WA	Competitive
VR	MOMSEN (DDG)	VR	FELMAR, DUBAI UAE			9,100.00				Y		EVERETT, WA	Competitive
VR	MOMSEN (DDG)	VR	NICO, DUBAI UAE			4,191.00				Y		EVERETT, WA	Competitive
VR	MORGANTHEAU (WHEC)	VR	JOHNSON CONTROLS PTE LTD, SINGAPORE	18		$13,887.00						Alameda, CA	
VR	MORGANTHEAU (WHEC)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	4		8,826.36						Alameda, CA	
VR	MUSTIN (DDG)	VR	CYCLECT SINGAPORE PTE LTD, SINGAPORE	3		$1,250.00						PACIFIC FLEET	
VR	NASSAU (LHA)	VR	FELMAR, DUBAI UAE			30,986.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	FELMAR, DUBAI UAE			13,490.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	FELMAR, DUBAI UAE			3,800.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	MUHARRAQ, MANAMA BAHRAIN	3		2,333.33				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	NICO, DUBAI UAE	4		1,570.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	NICO, DUBAI UAE			156.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	NICO, DUBAI UAE			1,570.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	NICO, DUBAI UAE			156.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	NICO, DUBAI UAE			3,480.00				Y		NORFOLK, VA	Competitive
VR	NASSAU (LHA)	VR	NICO, DUBAI UAE			(368.00)				Y		NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	BABCOCK MARINE LTD, GLASGOW SCOTLAND	6		$2,923.64						NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	CARRINO GIOVANNI, GLASGOW SCOTLAND	9		$6,206.98						NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	LUVIREP, BREST FRANCE	0		$2,179.44						NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	MIRANDA SRL, BREST FRANCE	5		$30,270.01				-		NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	NAVANTIA SA, LISBON PORTUGAL	5		$6,592.81						NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	T. RUIZ ROSANO, ROTA SPAIN	4		$9,262.63						NORFOLK, VA	Competitive
VR	NICHOLAS (FFG)	V/R	T. RUIZ ROSANO, ROTA SPAIN	4		$19,130.65						NORFOLK, VA	Competitive
VR	NORMANDY (CG)	V/R	T. RUIZ ROSANO, NAPLES ITALY	2		$3,027.00						NORFOLK, VA	Competitive
VR	NORMANDY (CG)	V/R	T. RUIZ ROSANO, ROTA SPAIN	3		$9,444.24						NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			9,000.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			2,000.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			8,077.33				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			2,266.67				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	BASREC, MANAMA BAHRAIN	4		2,613.33				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	BASREC, MANAMA BAHRAIN			(1,437.33)				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	BASREC, MANAMA BAHRAIN			1,813.33				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	BASREC, MANAMA BAHRAIN			869.33				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	DART AUTOMATION, Dubai UAE			1,420.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	DUBAI DRYDOCKS, DUBAI UAE			555.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	DUBAI DRYDOCKS, DUBAI UAE			(555.00)				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	DUBAI DRYDOCKS, DUBAI UAE			1,495.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	DUBAI DRYDOCKS, DUBAI UAE			2,330.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	DUBAI DRYDOCKS, DUBAI UAE			180.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	FELMAR, DUBAI UAE	1		2,315.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	FELMAR, DUBAI UAE	4		424.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN	5		1,000.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			666.67				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,120.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			(1,120.00)				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			(1,000.00)				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			933.33				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive
VR	OAK HILL (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			400.00				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	AFI, MANAMA BAHRAIN	4		1,066.67				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	ASRY, MANAMA BAHRAIN			1,026.67				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	ASRY, MANAMA BAHRAIN			773.33				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	ASRY, MANAMA BAHRAIN			3,541.33				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	BASREC, MANAMA BAHRAIN	7		240.00				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	FELMAR, MANAMA BAHRAIN			1,056.00				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	FELMAR, MANAMA BAHRAIN			1,016.00				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	INCHCAPE, MANAMA BAHRAIN			2,532.50				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			746.67				Y		NORFOLK, VA	Competitive
VR	OSCAR AUSTIN (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			853.33				Y		NORFOLK, VA	Competitive
VR	PATRIOT (MCM)	VR	BRIGANTINE SERVICES LIMITED, HONG KONG PRC	5		$800.00						PACIFIC FLEET	
VR	PATRIOT (MCM)	VR	CYCLECT SINGAPORE PTE LTD/CAREER MARINE AND TRADING/SES MARINE SERVICES PTE LTD/GLENN DEFENSE MARINE (ASIA) PTE LTD/RYDLYME ASIA PTE LTD/AMOS INTERNATIONAL PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	12		$192,900.00						PACIFIC FLEET	
VR	PATRIOT (MCM)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD/CYCLECT SINGAPORE PTE LTD/AMOS INTERNATIONAL PTE LTD/GLENN DEFENSE MARINE (ASIA) PTE LTD, SINGAPORE	4		$185,600.00						PACIFIC FLEET	
VR	PEARL HARBOR (LSD 49)	VR	AFI, MANAMA BAHRAIN			1,066.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	AFI, MANAMA BAHRAIN			266.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			6,208.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			7,261.33				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			600.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	AIRMECH, MANAMA BAHRAIN			1,186.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN	2		2,693.33				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN	4		2,728.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN			1,824.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN			200.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN			1,653.33				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN			1,120.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	ASRY, MANAMA BAHRAIN			882.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	BASREC, MANAMA BAHRAIN	5		960.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	BASREC, MANAMA BAHRAIN			960.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	BASREC, MANAMA BAHRAIN			15,136.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	FELMAR, MANAMA BAHRAIN			12,826.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	FELMAR, MANAMA BAHRAIN			16,536.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	FELMAR, MANAMA BAHRAIN			3,488.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	FELMAR, MANAMA BAHRAIN			4,666.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	FELMAR, MANAMA BAHRAIN			456.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN	6		2,333.33				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,666.67				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			200.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			400.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	MUHARRAQ, MANAMA BAHRAIN			1,800.00				Y		SAN DIEGO, CA	Competitive
VR	PEARL HARBOR (LSD 49)	VR	SES MARINE SERVICES PTE LTD/MARUNA UTAMA ENGINEERING PTE LTD, SINGAPORE	3		61,611.01						SAN DIEGO, CA	
VR	PELELIU (LHA)	VR	AFI, MANAMA BAHRAIN			1,600.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	AIRMECH, MANAMA BAHRAIN			4,933.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	AIRMECH, MANAMA BAHRAIN			2,133.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	AIRMECH, MANAMA BAHRAIN			2,800.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	AIRMECH, MANAMA BAHRAIN			600.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN	2		(2,186.67)				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN	4		2,771.47				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN	6		3,386.40				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			(1,421.47)				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			772.80				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			2,786.67				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			(1,436.37)				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			2,133.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			2,112.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			2,000.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			4,714.67				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			1,534.53				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			5,004.80				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			1,752.13				Y		SAN DIEGO, CA	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			1,541.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			3,581.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			2,080.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			1,280.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	ASRY, MANAMA BAHRAIN			2,574.93				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	BASREC, MANAMA BAHRAIN			533.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	CYCLECT SINGAPORE PTE LTD/GLENN DEFENSE MARINE (ASIA) PTE LTD, SINGAPORE	5		88,000.00						SAN DIEGO, CA	
VR	PELELIU (LHA)	VR	FELMAR, DUBAI UAE			2,164.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	FELMAR, DUBAI UAE			649.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	FELMAR, DUBAI UAE			4,512.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	FELMAR, MANAMA BAHRAIN			3,280.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	MUHARRAQ, MANAMA BAHRAIN	3		2,333.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	MUHARRAQ, MANAMA BAHRAIN			3,333.33				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	MUHARRAQ, MANAMA BAHRAIN			(1,666.67)				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	MUHARRAQ, MANAMA BAHRAIN			144.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	NICO, DUBAI UAE	3		1,390.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	NICO, DUBAI UAE	5		2,010.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	NICO, DUBAI UAE			2,740.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	NICO, DUBAI UAE			2,365.00				Y		SAN DIEGO, CA	Competitive
VR	PELELIU (LHA)	VR	NICO, DUBAI UAE			120.00				Y		SAN DIEGO, CA	Competitive
VR	PHILIPPINE SEA (CG)	VR	AIRMECH, MANAMA BAHRAIN			6,498.67				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	AIRMECH, MANAMA BAHRAIN			1,600.00				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	DART AUTOMATION, Dubai UAE	4		1,490.00				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	DART AUTOMATION, Dubai UAE			1,000.00				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	FELMAR, DUBAI UAE			6,970.00				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	FELMAR, DUBAI UAE			8,942.00				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	FELMAR, MANAMA BAHRAIN	4		5,226.67				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	FELMAR, MANAMA BAHRAIN			(1,493.34)				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	GRANDWELD, DUBAI UAE			684.00				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	8		9,813.33				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			4,986.67				Y		MAYPORT, FL	Competitive
VR	PHILIPPINE SEA (CG)	VR	PLASTIC, DUBAI UAE			3,393.00				Y		MAYPORT, FL	Competitive
VR	PONCE (LPD 4)	VR	ASRY, MANAMA BAHRAIN	5		2,629.33				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	ASRY, MANAMA BAHRAIN			780.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	BASREC, MANAMA BAHRAIN	4		160.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	DUBAI DRYDOCKS, DUBAI UAE	6		280.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	DUBAI DRYDOCKS, DUBAI UAE			500.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	DUBAI DRYDOCKS, DUBAI UAE			900.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	DUBAI DRYDOCKS, DUBAI UAE			3,040.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	DUBAI DRYDOCKS, DUBAI UAE			450.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	FELMAR, DUBAI UAE			13,988.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	FELMAR, DUBAI UAE			12,400.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			19,928.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	FELMAR, MANAMA BAHRAIN			8,688.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	GRANDWELD, DUBAI UAE	11		700.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	GRANDWELD, DUBAI UAE			(400.00)				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	GRANDWELD, DUBAI UAE			1,200.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	MUHARRAQ, MANAMA BAHRAIN	4		1,800.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	SEVEN SEAS, DUBAI UAE			6,650.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	SEVEN SEAS, DUBAI UAE			5,100.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	UMC, DUBAI UAE			4,690.00				Y		NORFOLK, VA	Competitive
VR	PONCE (LPD 4)	VR	UMC, DUBAI UAE			4,450.00				Y		NORFOLK, VA	Competitive
VR	PORT ROYAL (CG)	VR	AIRMECH, MANAMA BAHRAIN			7,165.33				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	AIRMECH, MANAMA BAHRAIN			4,466.67				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN	5		1,013.33				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			912.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			(506.67)				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			1,624.80				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			1,824.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			2,666.67				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			2,080.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	ASRY, MANAMA BAHRAIN			1,080.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	BASREC, MANAMA BAHRAIN	5		120.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	BASREC, MANAMA BAHRAIN			1,013.33				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	BASREC, MANAMA BAHRAIN			2,533.33				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	CYCLECT SINGAPORE PTE LTD, SINGAPORE	5		31,366.50						PEARL HARBOR, HI	
VR	PORT ROYAL (CG)	VR	FELMAR, DUBAI UAE			10,342.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	FELMAR, DUBAI UAE			12,500.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	FELMAR, DUBAI UAE			7,928.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	FELMAR, MANAMA BAHRAIN			8,928.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	FELMAR, MANAMA BAHRAIN			2,072.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	GUAM SHIPYARD, AGANA GUAM	4		3,943.00						PEARL HARBOR, HI	
VR	PORT ROYAL (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	2		240.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	NICO, DUBAI UAE	3		688.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	NICO, DUBAI UAE			570.00				Y		PEARL HARBOR, HI	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	PORT ROYAL (CG)	VR	NICO, DUBAI UAE			2,020.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	NICO, DUBAI UAE			390.00				Y		PEARL HARBOR, HI	Competitive
VR	PORT ROYAL (CG)	VR	NICO, DUBAI UAE			1,065.00				Y		PEARL HARBOR, HI	Competitive
VR	PRINCETON (CG)	VR	BRIGANTINE SERVICES LIMITED/ FOSTERS ASIA PACIFIC PTE LTD, HONG KONG PRC	5		13,326.00						SAN DIEGO, CA	
VR	PRINCETON (CG)	VR	GUAM SHIPYARD, AGANA GUAM	4		15,000.00						SAN DIEGO, CA	
VR	PRINCETON (CG)	VR	GUAM SHIPYARD, AGANA GUAM	5		20,000.00						SAN DIEGO, CA	
VR	REUBEN JAMES (FFG)	VR	CYCLECT SINGAPORE PTE LTD, KOTA KINABALU MALAYSIA	4		22,123.81						PEARL HARBOR, HI	
VR	REUBEN JAMES (FFG)	VR	SES MARINE SERVICES PTE LTD/ FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	4		64,812.99						PEARL HARBOR, HI	
VR	RHIB SBT12	VR	VISION AIR AND SEA SERVICES, CEBU PHILIPPINES	26		23,595.00						SAN DIEGO, CA	
VR	ROOSEVELT (DDG)	V/R	CARRINO GIOVANNI, NAPLES ITALY	8		18,767.41						MAYPORT, FL	Competitive
VR	ROSS (DDG)	VR	ASRY, MANAMA BAHRAIN	5		4,000.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	FELMAR, DUBAI UAE			7,494.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	FELMAR, DUBAI UAE			9,292.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	GRANDWELD, DUBAI UAE	1		2,280.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	GRANDWELD, DUBAI UAE			1,820.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	GRANDWELD, DUBAI UAE			2,280.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	GRANDWELD, DUBAI UAE			7,120.00				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	INCHCAPE, DUBAI UAE			3,147.59				Y		NORFOLK, VA	Competitive
VR	ROSS (DDG)	V/R	MARPA CO LTD, LIMASSOL CYPRUS	3		4,504.18						NORFOLK, VA	Competitive
VR	ROSS (DDG)	VR	WARTSILA, DUBAI UAE	5		12,039.00				Y		NORFOLK, VA	Competitive
VR	RUSHMORE (LSD 41)	VR	AUSTINDO WA PTY LTD, FREMANTLE AUSTRALIA	5		5,313.00						SAN DIEGO, CA	
VR	RUSSELL (DDG)	VR	AFI, MANAMA BAHRAIN			266.67				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	AIRMECH, MANAMA BAHRAIN			133.33				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	ASRY, MANAMA BAHRAIN			480.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	BASREC, MANAMA BAHRAIN			1,986.67				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	BASREC, MANAMA BAHRAIN			373.33				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	BASREC, MANAMA BAHRAIN			1,440.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	BASREC, MANAMA BAHRAIN			12,664.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	FELMAR, MANAMA BAHRAIN			480.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	FELMAR, MANAMA BAHRAIN			1,448.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	HULL DIVING, MANAMA BAHRAIN			5,640.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			3,120.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,920.00				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	5		693.33				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			2,506.67				Y		PEARL HARBOR, HI	Competitive
VR	RUSSELL (DDG)	VR	WARTSILA, MANAMA BAHRAIN	5		21,346.46				Y		PEARL HARBOR, HI	Competitive
VR	SAN ANTONIO (LPD 17)	V/R	CARRINO GIOVANNI, NAPLES ITALY	3		19,820.81						NORFOLK, VA	Competitive
VR	SAN JACINTO (CG)	V/R	CARRINO GIOVANNI, NAPLES ITALY	3		5,872.38						NORFOLK, VA	Competitive
VR	SAN JACINTO (CG)	V/R	EM. G. LIVADAROS, NAPLES ITALY	5		1,513.50						NORFOLK, VA	Competitive
VR	SAN JACINTO (CG)	V/R	MLS, NAPLES ITALY	3		2,058.36						NORFOLK, VA	Competitive
VR	SBT-20	VR	ASRY, MANAMA BAHRAIN			2,874.67				Y		N/A	Competitive
FDNF	SCOUT (MCM)	CM	AFI, MANAMA BAHRAIN	2		160.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	AFI, MANAMA BAHRAIN	5		293.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AFI, MANAMA BAHRAIN	5		213.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AFI, MANAMA BAHRAIN			533.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AFI, MANAMA BAHRAIN			200.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AFI, MANAMA BAHRAIN			229.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			8,600.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			3,466.67				Y -		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,493.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,133.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,200.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,386.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,200.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			1,613.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			2,466.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	AIRMECH, MANAMA BAHRAIN			600.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN	2		9,280.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN	4		6,416.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN	16		22,400.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN	215		2,933.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN			2,400.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN			1,626.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN			6,800.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN			752.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN			781.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	ASRY, MANAMA BAHRAIN			5,120.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			2,880.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			2,080.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			3,200.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,813.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			213.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,733.33				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			14,000.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ASRY, MANAMA BAHRAIN			1,386.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	2		1,333.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	3		920.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	BASREC, MANAMA BAHRAIN	5		120.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	8		733.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	10		800.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	BASREC, MANAMA BAHRAIN	12		4,442.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	12		426.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	16		6,797.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	34		1,141.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN	75		8,650.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	BASREC, MANAMA BAHRAIN			1,040.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	BASREC, MANAMA BAHRAIN			120.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,120.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			947.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			986.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,946.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			533.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			773.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			4,267.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			2,266.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			3,680.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			2,906.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,173.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			3,386.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,333.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,325.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			2,413.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,293.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			861.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,338.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			106.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			400.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			2,533.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			2,074.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			373.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			1,013.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			346.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			480.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			253.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	BASREC, MANAMA BAHRAIN			306.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	DT MARINES, MANAMA BAHRAIN	22		1,088.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	DT MARINES, MANAMA BAHRAIN	32		22,700.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	ELCTRICAL MACHINE, MANAMA BAHRAIN			666.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	FDGM, MANAMA BAHRAIN	5		20,769.38				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	FELMAR, MANAMA BAHRAIN			9,240.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	FELMAR, MANAMA BAHRAIN			3,960.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	FELMAR, MANAMA BAHRAIN			960.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	FELMAR, MANAMA BAHRAIN			4,933.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	FELMAR, MANAMA BAHRAIN			4,480.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	FELMAR, MANAMA BAHRAIN			26,945.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	HYDROLINK, MANAMA BAHRAIN			1,133.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	HYDROLINK, MANAMA BAHRAIN			3,533.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	HYDROLINK, MANAMA BAHRAIN			1,000.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	HYVAL INDUSTRIES, MANAMA BAHRAIN			8,759.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MARINE PRODUCTS, INC, MANAMA BAHRAIN	52		500.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN	1		280.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	6		173.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	MUHARRAQ, MANAMA BAHRAIN	15		1,120.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN	41		320.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			5,760.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			506.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			666.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			720.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			2,773.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	MUHARRAQ, MANAMA BAHRAIN			266.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	6		4,533.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	7		2,373.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN	8		1,600.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			181.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			5,453.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			2,416.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	VR	SULTAN A/C & R, MANAMA BAHRAIN			493.33				Y		PACIFIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	SCOUT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			11,700.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			3,400.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,320.00				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			11,466.67				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			7,333.33				Y		PACIFIC FLEET	Competitive
FDNF	SCOUT (MCM)	CM	SULTAN A/C & R, MANAMA BAHRAIN			2,666.67				Y		PACIFIC FLEET	Competitive
VR	SHOUP (DDG)	VR	ASRY, MANAMA BAHRAIN			8,448.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	BASREC, MANAMA BAHRAIN			480.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	FELMAR, DUBAI UAE	7		2,150.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	FELMAR, DUBAI UAE			1,765.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	FELMAR, DUBAI UAE			1,689.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	FELMAR, MANAMA BAHRAIN			280.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN	5		600.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,653.33				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	NICO, DUBAI UAE			1,790.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	NICO, DUBAI UAE			1,670.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	NICO, DUBAI UAE			1,270.00				Y		EVERETT, WA	Competitive
VR	SHOUP (DDG)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	5		$11,600.00						EVERETT, WA	
VR	SHOUP (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			6,000.00				Y		EVERETT, WA	Competitive
FDNF	SIROCCO (PC 1)	CM	AFI, MANAMA BAHRAIN			533.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	AIRMECH, MANAMA BAHRAIN			3,680.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			600.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ARABIAN INTERNAT'L, MANAMA BAHRAIN	1		533.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ARABIAN INTERNAT'L, MANAMA BAHRAIN	1		533.34				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ARABIAN INTERNAT'L, MANAMA BAHRAIN	1		533.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ARABIAN INTERNAT'L, MANAMA BAHRAIN	1		533.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ARABIAN INTERNAT'L, MANAMA BAHRAIN			533.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ARABIAN INTERNAT'L, MANAMA BAHRAIN			533.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ARABIAN INTERNAT'L, MANAMA BAHRAIN			666.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ARABIAN INTERNAT'L, MANAMA BAHRAIN			133.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN	3		320.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN	3		746.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN	4		3,221.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN	15		138.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ASRY, MANAMA BAHRAIN			1,920.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ASRY, MANAMA BAHRAIN			2,100.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ASRY, MANAMA BAHRAIN			1,360.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	ASRY, MANAMA BAHRAIN			(1,360.00)				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			3,066.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			4,000.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,256.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			3,984.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			13,632.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,280.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			4,548.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,147.20				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,152.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	ASRY, MANAMA BAHRAIN			19,944.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN	1		266.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN	11		4,088.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN	22		9,040.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN	29		14,277.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN			960.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN			960.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN			6,264.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN			1,957.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	BASREC, MANAMA BAHRAIN			5,333.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			1,480.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			3,453.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			2,400.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			1,290.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			2,096.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FDGM, MANAMA BAHRAIN	10		1,200.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FDGM, MANAMA BAHRAIN			43,248.19				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			3,653.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			6,266.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			7,572.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			3,184.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			3,440.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			1,488.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			5,816.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			102.00				Y		ATLANTIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	SIROCCO (PC 1)	CM	FELMAR, MANAMA BAHRAIN			168.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	HYDROLINK, MANAMA BAHRAIN	7		26,266.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN	1		131.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	INCHCAPE, MANAMA BAHRAIN			2,871.75				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	INCHCAPE, MANAMA BAHRAIN			76.50				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	INCHCAPE, MANAMA BAHRAIN			1,412.00				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	INCHCAPE, MANAMA BAHRAIN			731.52				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	INCHCAPE, MANAMA BAHRAIN			731.52				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	MUHARRAQ, MANAMA BAHRAIN			9,333.33				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	SULTAN A/C & R, MANAMA BAHRAIN	11		2,666.67				Y		ATLANTIC FLEET	Competitive
FDNF	SIROCCO (PC 1)	VR	SULTAN A/C & R, MANAMA BAHRAIN			(2,666.67)				Y		ATLANTIC FLEET	Competitive
VR	STOUT (DDG)	VR	AFI, MANAMA BAHRAIN			1,333.33				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	AFI, MANAMA BAHRAIN			133.33				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	AIRMECH, MANAMA BAHRAIN			3,333.33				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	AIRMECH, MANAMA BAHRAIN			2,266.67				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	ASRY, MANAMA BAHRAIN	6		2,613.33				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	ASRY, MANAMA BAHRAIN			2,506.67				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	ASRY, MANAMA BAHRAIN			2,405.33				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	ASRY, MANAMA BAHRAIN			2,000.00				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	BASREC, MANAMA BAHRAIN			1,434.67				Y		NORFOLK, VA	Competitive
VR	STOUT (DDG)	VR	BASREC, MANAMA BAHRAIN			680.00				Y		NORFOLK, VA	Competitive
VR	TARAWA (LHA)	VR	AFI, MANAMA BAHRAIN	2		200.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	AUSTINDO WA PTY LTD, FREMANTLE AUSTRALIA	4		$76,000.00						SAN DIEGO, CA	
VR	TARAWA (LHA)	VR	FELMAR, MANAMA BAHRAIN	6		1,064.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	GRANDWELD, DUBAI UAE	6		2,040.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	GRANDWELD, DUBAI UAE			528.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	GRANDWELD, DUBAI UAE			1,260.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	INCHCAPE, DUBAI UAE			115,718.36				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	INCHCAPE, DUBAI UAE			26,350.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	SES MARINE SERVICES PTE LTD, SINGAPORE	5		$46,000.00						SAN DIEGO, CA	
VR	TARAWA (LHA)	VR	SEVEN SEAS, DUBAI UAE			2,339.00				Y		SAN DIEGO, CA	Competitive
VR	TARAWA (LHA)	VR	UMC, DUBAI UAE			7,360.00				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	AIRMECH, MANAMA BAHRAIN			1,293.33				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	ASRY, MANAMA BAHRAIN			1,544.00				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	ASRY, MANAMA BAHRAIN			1,514.67				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN	8		1,120.00				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN			(906.67)				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,541.33				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	5		7,626.67				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			6,133.33				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			4,960.00				Y		SAN DIEGO, CA	Competitive
VR	THACH (FFG)	VR	WANG TAK ENGINEERING & SHIPBUILDING CO. LTD, HONG KONG PRC	5		$8,000.00						SAN DIEGO, CA	
VR	TORTUGA (LSD 41)	VR	BRIGANTINE SERVICES LIMITED, HONG KONG PRC	4		$700.00						PACIFIC FLEET	
VR	TORTUGA (LSD 41)	VR	CYCLECT SINGAPORE PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	5		$42,000.00						PACIFIC FLEET	
VR	TORTUGA (LSD 41)	VR	MARUNDA UTAMA ENGINEERING PTE LTD, SINGAPORE	7		$75,000.00						PACIFIC FLEET	
VR	TORTUGA (LSD 41)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	8		$65,000.00						PACIFIC FLEET	
VR	TORTUGA (LSD 41)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD/CAREER MARINE AND TRADING/MARUNDA UTAMA ENGINEERING PTE LTD, SINGAPORE	7		$170,000.00				"		PACIFIC FLEET	
VR	TORTUGA (LSD 41)	VR	UNITHAI SHIPYARD & ENGINEERING LTD/SES MARINE SERVICES PTE LTD, SINGAPORE	8		$5,000.00						PACIFIC FLEET	
VR	TORTUGA (LSD 41)	VR	VISION AIR AND SEA SERVICES, SUBIC BAY PHILIPPINES	5		$4,000.00						PACIFIC FLEET	
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN	12		213.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN	24		453.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN			320.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN			213.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN			213.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN			1,066.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN			266.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AFI, MANAMA BAHRAIN			106.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			1,232.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			1,680.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			528.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			826.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			826.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN	4		3,600.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	ASRY, MANAMA BAHRAIN	6		2,533.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	ASRY, MANAMA BAHRAIN	9		6,666.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN	9		666.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN	9		8,298.67				Y		ATLANTIC FLEET	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN	21		2,946.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	ASRY, MANAMA BAHRAIN			1,504.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			2,346.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			20,026.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,120.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,293.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			933.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			600.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			8,266.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			12,493.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			6,373.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,653.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	ASRY, MANAMA BAHRAIN			6,416.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	BASREC, MANAMA BAHRAIN	8		960.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	BASREC, MANAMA BAHRAIN	11		960.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	BASREC, MANAMA BAHRAIN	100		800.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	BASREC, MANAMA BAHRAIN			52,784.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	BASREC, MANAMA BAHRAIN			6,656.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	BASREC, MANAMA BAHRAIN			1,352.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	BASREC, MANAMA BAHRAIN			1,053.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	BASREC, MANAMA BAHRAIN			9,496.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	BASREC, MANAMA BAHRAIN			3,877.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FDGM, MANAMA BAHRAIN	5		2,041.05				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	FDGM, MANAMA BAHRAIN			284.52				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FDGM, MANAMA BAHRAIN			4,552.32				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FDGM, MANAMA BAHRAIN			284.53				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FDGM, MANAMA BAHRAIN			340.40				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FDGM, MANAMA BAHRAIN			(4,082.09)				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FDGM, MANAMA BAHRAIN			8,164.18				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FELMAR, MANAMA BAHRAIN	3		1,248.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FELMAR, MANAMA BAHRAIN			3,200.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FELMAR, MANAMA BAHRAIN			6,933.33				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	FELMAR, MANAMA BAHRAIN			160.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	HULL DIVING SERVICES, MANAMA BAHRAIN			3,466.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	VR	HULL DIVING SERVICES, MANAMA BAHRAIN			4,266.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	HYDROLINK, MANAMA BAHRAIN			27,066.67				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			3,083.25				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			512.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			2,100.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			1,195.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			1,934.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			1,153.77				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			131.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	INCHCAPE, MANAMA BAHRAIN			131.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	MAN DIESELS, MANAMA BAHRAIN			2,895.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	MONARCH TECH, MANAMA BAHRAIN	10		2,781.29				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			320.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			320.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	MUHARRAQ, MANAMA BAHRAIN			320.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,120.00				Y		ATLANTIC FLEET	Competitive
FDNF	TYPHOON (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,026.67				Y		ATLANTIC FLEET	Competitive
VR	VANDEGRIFT (FFG)	VR	AUSTINDO WA PTY LTD, DARWIN AUSTRALIA	4		$57,000.00						SAN DIEGO, CA	
VR	VANDEGRIFT (FFG)	VR	BOUSTEAD NAVAL SHIPYARD, KOTA KINABALU MALAYSIA	4		$6,720.00						SAN DIEGO, CA	
VR	VANDEGRIFT (FFG)	VR	SES MARINE SERVICES PTE LTD/FOSTERS ASIA PACIFIC PTE LTD, SINGAPORE	7		$73,054.25						SAN DIEGO, CA	
VR	VICKSBURG (CG)	VR	AIRMECH, MANAMA BAHRAIN			1,000.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	AIRMECH, MANAMA BAHRAIN			9,565.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	AIRMECH, MANAMA BAHRAIN			333.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN	5		5,866.67				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			853.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			746.67				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			1,013.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			2,232.67				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			980.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			1,609.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			1,262.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			853.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			1,226.67				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			(1,226.67)				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			880.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	ASRY, MANAMA BAHRAIN			960.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	BASREC, MANAMA BAHRAIN	8		533.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	BASREC, MANAMA BAHRAIN			293.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	DUBAI DRYDOCKS, DUBAI UAE	3		380.00				Y		MAYPORT, FL	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
VR	VICKSBURG (CG)	VR	DUBAI DRYDOCKS, DUBAI UAE			1,695.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	FELMAR, DUBAI UAE			2,892.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	FELMAR, DUBAI UAE			5,988.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	FELMAR, MANAMA BAHRAIN			13,512.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	FELMAR, MANAMA BAHRAIN			2,040.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	1		400.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN	7		1,733.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			240.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,120.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			466.67				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			240.00				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,013.33				Y		MAYPORT, FL	Competitive
VR	VICKSBURG (CG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			3,200.00				Y		MAYPORT, FL	Competitive
VR	WASP (LHD)	VR	AIRMECH, MANAMA BAHRAIN			6,581.33				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	AIRMECH, MANAMA BAHRAIN			2,133.33				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	ASRY, MANAMA BAHRAIN			1,805.33				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	FELMAR, MANAMA BAHRAIN			21,424.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	FELMAR, MANAMA BAHRAIN			4,232.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN	25		2,000.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN			5,333.33				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN			2,600.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN			1,024.00				Y		NORFOLK, VA	Competitive
VR	WASP (LHD)	VR	MUHARRAQ, MANAMA BAHRAIN			(1,024.00)				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	AFI, MANAMA BAHRAIN			186.67				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	BASREC, MANAMA BAHRAIN	6		320.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	BASREC, MANAMA BAHRAIN	24		880.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	FELMAR, DUBAI UAE	36		2,694.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	FELMAR, DUBAI UAE			5,114.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN	3		733.33				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	MUHARRAQ, MANAMA BAHRAIN	5		1,066.67				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	NICO, DUBAI UAE			420.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	NICO, DUBAI UAE			2,200.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	SCAMP MIDDLE EAST, DUBAI UAE			7,700.00				Y		NORFOLK, VA	Competitive
VR	WHIDBEY ISLAND (LSD 41)	VR	WARTSILA, DUBAI UAE			8,752.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	AFI, MANAMA BAHRAIN	15		600.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	AFI, MANAMA BAHRAIN			293.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			3,920.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	AIRMECH, MANAMA BAHRAIN			560.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN	9		19,466.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN	14		3,477.07				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN	18		7,986.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN	24		5,816.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN			6,649.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN			3,200.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN			8,469.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,186.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	ASRY, MANAMA BAHRAIN			1,186.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN	16		13,176.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	VR	BASREC, MANAMA BAHRAIN	17		16,624.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	VR	BASREC, MANAMA BAHRAIN			960.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			3,960.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			618.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			1,120.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			10,768.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			1,125.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			960.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	BASREC, MANAMA BAHRAIN			3,573.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	CHALMERS, Dubai UAE			1,300.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FDGM, MANAMA BAHRAIN	9		569.04				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	VR	FDGM, MANAMA BAHRAIN	10		2,842.40				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FDGM, MANAMA BAHRAIN	10		853.56				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FDGM, MANAMA BAHRAIN	22		12,500.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FDGM, MANAMA BAHRAIN			1,450.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FDGM, MANAMA BAHRAIN			741.80				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			2,133.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			1,333.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			792.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			4,180.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			880.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			3,000.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			1,920.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	FELMAR, MANAMA BAHRAIN			533.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	NICO, DUBAI UAE			2,115.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	NICO, DUBAI UAE			700.00				Y		NORFOLK, VA	Competitive

Navy: Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price (F)	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	WHIRLWIND (PC 1)	CM	NICO, DUBAI UAE			2,520.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	NUCLIMATE INTERNATIONAL			1,105.80				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	PLASTIC POWDER, MANAMA BAHRAIN			46,967.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	VR	SULTAN A/C & R, MANAMA BAHRAIN			666.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	VR	SULTAN A/C & R, MANAMA BAHRAIN			1,600.00				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			4,266.67				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			6,133.33				Y		NORFOLK, VA	Competitive
FDNF	WHIRLWIND (PC 1)	CM	SULTAN A/C & R, MANAMA BAHRAIN			1,514.67				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	AFI, MANAMA BAHRAIN	4		186.67				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	AIRMECH, MANAMA BAHRAIN	2		794.67				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	AIRMECH, MANAMA BAHRAIN			853.33				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	ASRY, MANAMA BAHRAIN	4		837.33				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	BASREC, MANAMA BAHRAIN	4		586.67				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	BASREC, MANAMA BAHRAIN			640.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	BASREC, MANAMA BAHRAIN			(586.67)				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	FELMAR, MANAMA BAHRAIN			496.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	FELMAR, MANAMA BAHRAIN			1,840.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	FELMAR, MANAMA BAHRAIN			3,200.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	FELMAR, MANAMA BAHRAIN			560.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	FELMAR, MANAMA BAHRAIN			2,128.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			480.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,000.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			680.00				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			1,066.67				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	MUHARRAQ, MANAMA BAHRAIN			(666.67)				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN	4		2,133.33				Y		NORFOLK, VA	Competitive
VR	WINSTON CHURCHILL (DDG)	VR	SULTAN A/C & R, MANAMA BAHRAIN			2,200.00				Y		NORFOLK, VA	Competitive
			TOTAL NR OF DAYS	3,771	TOTAL COST	$ 13,164,724							

Definitions and Notes

*	Data was not available.
CM	Continuous Maintenance
FDNF	Forward Deployed Naval Forces
VR	Voyage Repairs

Navy (Japan): Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price ($K) (F)	Repair cost paid to Foreign Contractors ($)**	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	BLUE RIDGE (LCC)	SRA	SRF-JRMC, YOKOSUKA JAPAN	71		$4,846.0	$1,941,000	N/A			Y		PACIFIC FLEET	FFP
FDNF	BLUE RIDGE (LCC)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$2,643.0	$2,133,000	N/A			Y		PACIFIC FLEET	FFP
FDNF	BLUE RIDGE (LCC)	CMAV	SRF-JRMC, YOKOSUKA JAPAN	18		$0.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	BLUE RIDGE (LCC)	EM	SRF-JRMC, YOKOSUKA JAPAN			$644.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	COWPENS (CG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	64		$5,664.0	$694,237	N/A			Y		PACIFIC FLEET	FFP
FDNF	COWPENS (CG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,490.0	$157,611	N/A			Y		PACIFIC FLEET	FFP
FDNF	COWPENS (CG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$1,406.0	$725,793	N/A			Y		PACIFIC FLEET	FFP
FDNF	SHILOH (CG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	N/A		$2,358.0	$900,087	N/A					PACIFIC FLEET	FFP
FDNF	SHILOH (CG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,660.0	$41,777	N/A			Y		PACIFIC FLEET	FFP
FDNF	SHILOH (CG)	CMAV 1	SRF-JRMC, YOKOSUKA JAPAN	35		$0.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	SHILOH (CG)	CMAV 2	SRF-JRMC, YOKOSUKA JAPAN	21		$0.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	SHILOH (CG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$294.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	CURTIS WILBUR (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	92		$4,206.5	$1,498,864	N/A			Y		PACIFIC FLEET	FFP
FDNF	CURTIS WILBUR (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$932.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	JOHN S MCCAIN (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	79		$2,181.7	$828,180	N/A			Y		PACIFIC FLEET	FFP
FDNF	JOHN S MCCAIN (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,128.0	$199,339	N/A			Y		PACIFIC FLEET	FFP
FDNF	FITZGERALD (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	92		$6,828.4	$3,103,064	N/A			Y		PACIFIC FLEET	FFP
FDNF	FITZGERALD (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,711.0	$1,056,539	N/A			Y		PACIFIC FLEET	FFP
FDNF	FITZGERALD (DDG)	CMAV	SRF-JRMC, YOKOSUKA JAPAN	19				N/A			Y		PACIFIC FLEET	FFP
FDNF	FITZGERALD (DDG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$5.6		N/A			Y		PACIFIC FLEET	FFP
FDNF	STETHEM (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	64		$2,243.5	$470,579	N/A			Y		PACIFIC FLEET	FFP
FDNF	STETHEM (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,457.0	$123,343	N/A			Y		PACIFIC FLEET	FFP
FDNF	STETHEM (DDG)	CMAV	SRF-JRMC, YOKOSUKA JAPAN	22				N/A			Y		PACIFIC FLEET	FFP
FDNF	STETHEM (DDG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$145.0	$76,419	N/A			Y		PACIFIC FLEET	FFP
FDNF	LASSEN (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN			$1,222.4	$318,402	N/A					PACIFIC FLEET	
FDNF	LASSEN (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,280.0	$250,034	N/A			Y		PACIFIC FLEET	FFP

Navy (Japan): Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price ($K) (F)	Repair cost paid to Foreign Contractors ($)**	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	LASSEN (DDG)	CMAV	SRF-JRMC, YOKOSUKA JAPAN	36				N/A			Y		PACIFIC FLEET	FFP
FDNF	LASSEN (DDG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$3.2		N/A			Y		PACIFIC FLEET	FFP
FDNF	MCCAMPBELL (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN	65		$2,182.0	$581,741	N/A			Y		PACIFIC FLEET	FFP
FDNF	MCCAMPBELL (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability.		$1,098.0	$230,746	N/A			Y		PACIFIC FLEET	FFP
FDNF	MCCAMPBELL (DDG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$46.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	MUSTIN (DDG)	SRA	SRF-JRMC, YOKOSUKA JAPAN			$384.1	$316,402	N/A			Y		PACIFIC FLEET	FFP
FDNF	MUSTIN (DDG)	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability.		$1,296.0	$304,361	N/A			Y		PACIFIC FLEET	FFP
FDNF	MUSTIN (DDG)	CMAV	SRF-JRMC, YOKOSUKA JAPAN	22				N/A			Y		PACIFIC FLEET	FFP
FDNF	MUSTIN (DDG)	EM	SRF-JRMC, YOKOSUKA JAPAN			$263.2		N/A			Y		PACIFIC FLEET	FFP
FDNF	KITTY HAWK (CV 63)	SRA	SRF-JRMC, YOKOSUKA JAPAN	61		$10,994.0	$9,170,646	N/A			Y		PACIFIC FLEET	FFP
FDNF	GEORGE WASHINGTON (CVN 68)	SRA	SRF-JRMC, YOKOSUKA JAPAN			$10,567.0	$2,190,194	N/A					PACIFIC FLEET	FFP
FDNF	ESSEX (LHD)	SRA	SRF-JRMC, SASEBO JAPAN	N/A		$900.0	$173,442	N/A					PACIFIC FLEET	
FDNF	ESSEX (LHD)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability.		$5,865.0	$2,397,168	N/A			Y		PACIFIC FLEET	FFP
FDNF	ESSEX (LHD)	CMAV 1	SRF-JRMC, SASEBO JAPAN	33				N/A			Y		PACIFIC FLEET	FFP
FDNF	ESSEX (LHD)	CMAV 2	SRF-JRMC, SASEBO JAPAN	42				N/A			Y		PACIFIC FLEET	FFP
FDNF	ESSEX (LHD)	EM	SRF-JRMC, SASEBO JAPAN			$141.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	DENVER (LPD 4)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability.		$4,052.8	$2,941,658	N/A			Y		PACIFIC FLEET	FFP
FDNF	DENVER (LPD 4)	EM	SRF-JRMC, SASEBO JAPAN	25		$30.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	JUNEAU (LPD 4)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability.		$2,886.0	$1,515,714	N/A			Y		PACIFIC FLEET	FFP
FDNF	JUNEAU (LPD 4)	CMAV 1	SRF-JRMC, SASEBO JAPAN	33				N/A			Y		PACIFIC FLEET	FFP
FDNF	JUNEAU (LPD 4)	CMAV 2	SRF-JRMC, SASEBO JAPAN	15				N/A			Y		PACIFIC FLEET	FFP
FDNF	TORTUGA (LSD 41)	SRA	SRF-JRMC, SASEBO JAPAN	113		$14,207.0	$12,399,203	N/A			N		PACIFIC FLEET	FFP
FDNF	TORTUGA (LSD 41)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability.		$4,314.0	$1,525,098	N/A			Y		PACIFIC FLEET	FFP
FDNF	TORTUGA (LSD 41)	CMAV 1	SRF-JRMC, SASEBO JAPAN	25				N/A			Y		PACIFIC FLEET	FFP
FDNF	TORTUGA (LSD 41)	CMAV 2	SRF-JRMC, SASEBO JAPAN	26				N/A			Y		PACIFIC FLEET	FFP
FDNF	TORTUGA (LSD 41)	EM	SRF-JRMC, SASEBO JAPAN			$471.9	$86,118	N/A			Y		PACIFIC FLEET	FFP
FDNF	HARPERS FERRY (LSD 49)	SRA	SRF-JRMC, SASEBO JAPAN	N/A		$1,834.0	$1,479,078	N/A			Y		PACIFIC FLEET	FFP

Navy (Japan): Overseas Ship Repair 2008

Data as of 26 Jan 09

Justification for Overseas Repair (A)	Vessel Name & Class (B)	Category of Repair (C)	Shipyard (D)	Actual # of Days for Repair (E)	Contract Award Value (F)*	Final Contract/ Repair Price ($K) (F)	Repair cost paid to Foreign Contractors ($)**	+/- Contracted Amount (F)*	Sched'd # of Days for Repair (G)*	Estimated Work (in man days) (G)*	Completed on Schedule? (G)	Reason (G)*	Ship Homeport/ Loc Prior to Repair (H)	Type of Contract (I)
FDNF	HARPERS FERRY (LSD 49)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability		$3,364.0	$748,445	N/A			Y		PACIFIC FLEET	FFP
FDNF	HARPERS FERRY (LSD 49)	CMAV 1	SRF-JRMC, SASEBO JAPAN	30				N/A			Y		PACIFIC FLEET	FFP
FDNF	HARPERS FERRY (LSD 49)	CMAV 2	SRF-JRMC, SASEBO JAPAN	33				N/A			Y		PACIFIC FLEET	FFP
FDNF	HARPERS FERRY (LSD 49)	EM	SRF-JRMC, SASEBO JAPAN			$337.0		N/A			Y		PACIFIC FLEET	FFP
FDNF	GUARDIAN (MCM)	SRA	SRF-JRMC, SASEBO JAPAN	64		$782.3	$268,127	N/A			Y		PACIFIC FLEET	FFP
FDNF	GUARDIAN (MCM)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability		$982.0	$416,762	N/A			Y		PACIFIC FLEET	FFP
FDNF	GUARDIAN (MCM)	CMAV	SRF-JRMC, SASEBO JAPAN	14				N/A			Y		PACIFIC FLEET	FFP
FDNF	GUARDIAN (MCM)	EM	SRF-JRMC, SASEBO JAPAN	41		$305.0	$60,767	N/A			Y		PACIFIC FLEET	FFP
FDNF	PATRIOT (MCM)	SRA	SRF-JRMC, SASEBO JAPAN	78		$1,048.0	$496,057	N/A			Y		PACIFIC FLEET	FFP
FDNF	PATRIOT (MCM)	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability		$1,670.0	$379,784	N/A			Y		PACIFIC FLEET	FFP
FDNF	PATRIOT (MCM)	EM	SRF-JRMC, SASEBO JAPAN	41		$63.0	$48,657	N/A			Y		PACIFIC FLEET	FFP
FDNF	ASSAULT CRAFT UNIT 1 & 5 DET	CM	SRF-JRMC, SASEBO JAPAN	Work completed within window of scheduled Availability		$2,070.0	$221,294	N/A			Y		PACIFIC FLEET	FFP
FDNF	N/A	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$7,436.3	$1,224,670	N/A			Y		PACIFIC FLEET	FFP
FDNF	CFAY SERVICE CRAFT SUPPORT	CM	SRF-JRMC, YOKOSUKA JAPAN	Work completed within window of scheduled Availability		$1,526.0	$273,710	N/A			Y		PACIFIC FLEET	FFP
VR	FORD (FFG)	VR	SRF-JRMC, SASEBO JAPAN	12		$296.0	$198,320	N/A			Y		SAN DIEGO, CA	FFP
VR	PRINCETON (CG)	VR	SRF-JRMC, SASEBO JAPAN	6		$47.7		N/A			Y		SAN DIEGO, CA	FFP
VR	RONALD REAGAN (CVN 68)	VR	SRF-JRMC, SASEBO JAPAN	5		$22.2		N/A			Y		SAN DIEGO, CA	FFP
VR	THACK (FFG)	VR	SRF-JRMC, SASEBO JAPAN	21		$117.1	$3,960	N/A			N		SAN DIEGO, CA	FFP
VR	CHANCELLORSVILLE (CG)	VR	SRF-JRMC, YOKOSUKA JAPAN	8		$72.6	$6,090	N/A			Y		SAN DIEGO, CA	FFP
VR	DECATUR (DDG)	VR	SRF-JRMC, YOKOSUKA JAPAN	2		$14.9	$14,900	N/A			Y		SAN DIEGO, CA	FFP
VR	HOWARD (DDG)	VR	SRF-JRMC, YOKOSUKA JAPAN	5		$6.7		N/A			Y		SAN DIEGO, CA	FFP
VR	O'KANE (DDG)	VR	SRF-JRMC, YOKOSUKA JAPAN	3		$1.3		N/A			Y		PEARL HARBOR, HI	FFP
VR	RENTZ (FFG)	VR	SRF-JRMC, YOKOSUKA JAPAN	4		$26.3		N/A			Y		SAN DIEGO, CA	FFP
VR	CITY OF CORPUS CHRISTI (SSN 688)	VR	SRF-JRMC, YOKOSUKA JAPAN	5		$2.6		N/A			Y		GUAM	FFP
VR	LA JOLLA (SSN 688)	VR	SRF-JRMC, Yokosuka & SASEBO JAPAN	11		$15.2		N/A			Y		PEARL HARBOR, HI	FFP
VR	PROVIDENCE (SSN 688)	VR	SRF-JRMC, YOKOSUKA JAPAN	13		$28.1		N/A			Y		NEW LONDON, CT	FFP
VR	HELENA (SSN 688)	VR	SRF-JRMC, Yokosuka & SASEBO JAPAN	2		$4.4		N/A			Y		SAN DIEGO, CA	FFP
VR	COLUMBUS (SSN 688)	VR	SRF-JRMC, YOKOSUKA JAPAN	18		$7.6		N/A			Y		PEARL HARBOR, HI	FFP
VR	ASHEVILLE (SSN 688)	VR	SRF-JRMC, YOKOSUKA JAPAN	7		$2.7		N/A			Y		SAN DIEGO, CA	FFP
VR	FRANK CABLE (AS)	VR	SRF-JRMC, YOKOSUKA JAPAN	11		$23.1		N/A			Y		PACIFIC FLEET	FFP
			TOTAL NR OF DAYS	**1,507**	**TOTAL COSTS**	**$ 126,174,000**	**$ 54,175,494**							

Definitions and Notes

*	Data was not available
**	Data in this column is the amount actually paid to foreign contractors within the scope of existing
CM	Continuous Maintenance
CMAV	Continuous Maintenance Availability
EM	Emergent Maintenance
FDNF	Forward Deployed Naval Forces
FFP	Firm Fixed Price
SRA	Selected Restricted Availability
VR	Voyage Repairs

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Joseph R. Biden, Jr.
President of the Senate
Washington, DC 20510

Dear Mr. President:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. So, the additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the Speaker of the House, the House and Senate Committees on Appropriations, and the Congressional Defense Committees. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 2 4 2009

The Honorable Nancy Pelosi
Speaker of the House
of Representatives
Washington, DC 20515

Dear Ms. Speaker:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the House and Senate Committees on Appropriations, and the Congressional Defense Committees. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable David Obey
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the Speaker of the House, the Senate Committee on Appropriations, and the Congressional Defense Committees. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

Copy to:
The Honorable Jerry Lewis
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Carl Levin
Chairman, Committee on
Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the Speaker of the House, the Senate and House Committees on Appropriations, and Chairmen Skelton, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

Copy to:
The Honorable John S. McCain
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Ike Skelton
Chairman, Committee on
Armed Services
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the Speaker of the House, the Senate and House Committees on Appropriations, and Chairmen Levin, Inouye, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

Copy to:
The Honorable John M. McHugh
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Daniel K. Inouye
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the Speaker of the House, the House Committee on Appropriations, and the Chairmen of the Congressional Defense Committees. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510-6028

Dear Mr. Chairman:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the Speaker of the House, the Senate and House Committee on Appropriations, and Chairmen Skelton, Levin, and Murtha. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosures:
As stated

Copy to:
The Honorable Thad Cochran
Ranking Minority Member

THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

FEB 24 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives
Washington, DC 20515-6018

Dear Mr. Chairman:

The National Defense Authorization Act for Fiscal Year 2009, Section 1012, directed the Secretary of the Navy to submit an annual report listing all repairs and maintenance performed on any covered Navy vessel in any shipyard outside the United States or Guam during the preceding fiscal year.

The Navy collected data regarding the repair of Navy and Military Sealift Command (MSC) vessels in foreign shipyards, including Guam. The data affirms that 26 MSC vessels spent approximately $50M having repairs accomplished in foreign shipyards, of which approximately $8M were for voyage repairs. This represents eleven percent of the total MSC funds expended for maintenance and repair of MSC owned vessels. Ninety nine Navy ships spent approximately $67M having repairs accomplished by foreign contractors or in foreign shipyards, of which approximately $6M were for voyage repairs. This represents less than one percent of the total Navy funds expended for maintenance and repair. The enclosures provide the information requested for MSC vessels (enclosure 1), Navy ships in Europe and the Middle East (enclosure 2), and Navy ships in Japan (enclosure 3).

Not all of the requested information was available, and is therefore not included in this report. Efforts will be made to collect the missing data for future reports. For Navy ships, the actual costs of the repairs paid to foreign shipyards and/or contractors are provided, but the contracted costs of the repairs were not available. Also, for Navy ships in Japan, unscheduled maintenance work was often performed while the ship was in a scheduled availability. The additional cost for this work is reported, but the number of days required for this additional work was not recorded.

A similar letter has been sent to the President of the Senate, the Speaker of the House, the Senate and House Committees on Appropriations, and Chairmen Skelton, Inouye, and Levin. If I can be of further assistance, please let me know.

Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable C. W. Bill Young
Ranking Minority Member