



# governmentattic.org

*"Rummaging in the government's attic"*

Description of document: Department of Commerce (DOC) Office of the Inspector General (OIG) unpublished reports, 1998-2007

Request date: 2008

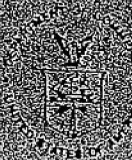
Released date: 2009

Posted date: 07-September-2015

Source of document: FOIA Officer  
Office of Inspector General  
U.S. Department of Commerce  
1401 Constitution Avenue, N.W., Room 7892  
Washington, DC 20230  
Fax: 202-501-7335  
Email: [FOIA@oig.doc.gov](mailto:FOIA@oig.doc.gov)  
[Online FOIA Request Form](#)

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.

U.S. DEPARTMENT OF COMMERCE  
*Office of Inspector General*



~~Procurement Sensitive~~

**NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION**

*NPOBSS Acquisition Well Planned  
but Life Cycle Cost Estimates  
for Critical Sensors Are Overstated*

*Inspector Report No. OSL-9593 September 1999*

The attached inspection report contains procurement sensitive information related to the conduct of a Federal agency contract. The disclosure or receipt of this information is restricted and the unauthorized use of this information may subject the discloser and recipient to contractual, civil and/or criminal penalties. The information in this report should not be copied or distributed without prior approval from the Inspector General.

~~Copy 22~~

*Office of Systems Evaluation*

# Procurement Sensitive

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
OBJECTIVES AND SCOPE .....	3
BACKGROUND .....	4
OBSERVATIONS AND CONCLUSIONS .....	9
I.    NPOESS Acquisition Process Is Well Planned .....	9
A.    Requirements Process Is Well Structured .....	9
B.    Acquisition Strategy Follows Federal Guidance for Reducing Risk ....	11
C.    NOAA Model Aids in NPOESS Planning .....	12
II.   Life-cycle Cost Estimates for Critical Sensors and Algorithms Are Overstated .	12
A.    Short-Term Funding Profile Adjustments Do Not Address Cost Estimating Anomaly .....	12
B.    Life-cycle Cost Estimates Should Be Adjusted Without Delay .....	15
RECOMMENDATIONS .....	17
Appendix I: Acronyms Used in This Report	
Appendix II: Long Term <i>Service Cost Position</i> Net Reduction of \$75.6 Million in Total Life-cycle Costs	
Appendix III: NOAA's Response to the Draft Report	

## EXECUTIVE SUMMARY

Since 1994, the Department of Commerce, the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA) have been working to create the nation's first polar-orbiting satellite system that will meet both civilian and defense environmental data needs. This National Polar-orbiting Operational Environmental Satellite System (NPOESS) is a National Performance Review initiative for Commerce and DOD. NPOESS is expected to save the taxpayers \$1.3 billion over 10 years by reducing the number of U.S.-owned operational satellites from four to two, increasing the useful life span of each satellite from 42 to 84 months, and combining the support functions. To manage the acquisition, the three agencies formed an Integrated Program Office (IPO), which reports to an Executive Committee composed of Commerce, DOD, and NASA senior management.

In 1996, program managers and agency decision-makers recognized that the program could be restructured to reduce overall program cost and risk. The new program, entitled "optimized convergence," delayed the date that the first NPOESS satellite would be needed from 2004 to 2007. A key aspect of the new program is early risk reduction for critical payload sensors and algorithms. As part of the risk reduction effort, in July 1997, IPO awarded multiple contracts for competitive design of the sensors and algorithms.

This report presents a preliminary evaluation of IPO's acquisition process and an in-depth evaluation of the NPOESS life-cycle cost estimates. We found that the requirements process, acquisition strategy, and satellite availability planning are well defined and, if followed, should reduce program risk. (See page 9.)

However, NPOESS life-cycle cost estimates for critical sensors and algorithms are overstated. IPO awarded the contracts for preliminary design and risk reduction of the sensors and algorithms for about 43 percent less than its budgeted cost. To account for most of the difference, IPO explained that its budget estimates include a 36-percent contingency for size, weight and power margins, and risk based on the relative uncertainty inherent in developing new technology. We believe the large difference between IPO estimates and contract award amounts suggests that the assumptions made about the size, weight, power parameters, or other factors were overstated and that the funding profile for the later phases of engineering and manufacturing development, and production may also be overstated. Under these circumstances, acquisition and budget guidelines suggest revising life-cycle costs to ensure that cost projections are realistic, current, and accurate. IPO has neither corrected the overestimate by reporting a new baseline nor revised its life-cycle cost methodology and assumptions to develop more accurate long-term estimates. (See page 12.)

We believe that the difference between estimated costs and contract award points to the need to reassess NPOESS cost estimating assumptions. We recommend that the Department's Under



## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

Secretary for Oceans and Atmosphere begin working with the Executive Committee and IPO as soon as possible to:

- (1) Examine risk, complexity, margins, and other relevant assumptions used in estimating Phase I critical sensor and algorithm funding profiles and report on how and where the 43 percent difference occurred.
- (2) Change any incorrect assumptions about risk, complexity, and margin and revise the life-cycle cost documentation to reflect a reduced contingency profile for the critical sensors and algorithms.
- (3) Reevaluate risk and complexity assumptions used for the rest of the program and make any needed changes to the assumptions and related life-cycle cost estimates.
- (4) Examine the reporting process of alerting the departments and Executive Committee representatives of significant cost differentials.
- (5) Produce an *Acquisition Decision Memorandum* to formally endorse the new baseline.

Based on NOAA's concerns regarding our draft report, we worked closely with the Administrator and Deputy Administrator of NESDIS, the NOAA audit liaison office, and the NPOESS Integrated Program Office (IPO) Executive Director to clarify issues, including NOAA's overriding concern that we did not adequately describe the detailed process used to create the initial NPOESS life-cycle cost estimate. Where appropriate, our final report incorporates these clarifications. Based on these discussions, we believed that NOAA had agreed to accept all but the last of the report's five recommendations. However, NOAA's written response disagrees with the first two, agrees with the third and fourth, and does not fully agree with the last of our recommendations.

### *Summary of NOAA's Response and Our Comments*

NOAA does not agree with our first two recommendations to reevaluate its cost estimating assumptions or change its life-cycle cost estimates to reflect a reduced budgetary profile. NOAA's position is based on its assertion that a very comprehensive assessment of risk, complexity, and margins for critical sensors and algorithms was performed prior to development of the initial life-cycle cost estimates. However, IPO states that in reviewing these initial estimates prior to releasing the request for proposals, it made a "conscious decision" to reexamine cost estimating assumptions, concluded that near-term estimates were flawed, and reduced them by 36 percent. IPO discounts this overestimate because it does not believe that the difficulty in estimating earlier life-cycle costs relates to the accuracy of future life-cycle cost estimates.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

We disagree. As we explained to IPO, we are not questioning the estimating process, but rather the need to reevaluate NPOESS life-cycle cost estimates for critical sensors and algorithms. IPO's corrective action before issuing the request for proposals reveals--at a minimum--the need to reexamine its life-cycle cost estimates. Based on IPO's decision to examine assumptions and lower cost estimates before releasing the request for proposals, it was able to save \$115 million from a total budget of \$264 million, about a 43 percent reduction. With about \$1 billion slated for critical sensors in Phase II, (Engineering and Manufacturing Development, Production and Operational Support), further examination could reveal significant future savings.

NOAA states that it accepts our third and fourth recommendations to conduct a detailed reevaluation of assumptions for all work breakdown structure elements and examine the reporting process to decision-makers. However, NOAA intends to wait 15 months to start the review of its cost estimating assumptions and does not propose any implementation actions for examining the reporting process of alerting the Department and Executive Committee representatives of significant cost differentials. We believe that the reevaluation actions should be done without delay. Our analysis of IPO's explanation of its cost estimating process for a portion of the critical sensor and algorithm efforts revealed a 60 to 80 percent overestimate in some engineering level-of-effort estimates. To the extent engineering level-of-effort estimates are used to justify all future NPOESS expenditures, these estimates require reexamination. Also, by waiting 15 months to begin, NOAA will miss the opportunity to update its 2000 and 2001 fiscal year budgets. NOAA also states that it keeps decision-makers informed. However, in an August 1997 memorandum to NOAA, the Department stated that it needed better information in order to understand and participate in Executive Committee budget decisions. NOAA needs to conduct detailed examinations of NPOESS cost estimates and implement more timely reporting practices without delay.

NOAA does not fully agree with our final recommendation to issue an *Acquisition Decision Memorandum* to formally endorse a new program baseline. NOAA believes that the May 1997 *Acquisition Decision Memorandum* is adequate and that a new memorandum is not warranted based on the changes to the program. However, we found that the May 1997 memorandum does not reflect IPO's corrective action to reduce its life-cycle cost estimate before issuing the request for proposals. Consequently, the new life-cycle cost estimate was not reported to decision-makers until October 1997, seven months after the decision was made. A new life-cycle cost estimate has yet to be formally endorsed by decision-makers through an *Acquisition Decision Memorandum*, which needs to be prepared as soon as possible.

A synopsis of the NOAA response to each of our recommendations and our discussion begins on page 17. These synopses and discussions include NOAA's general comments on the findings as well as recommendations. Clarifications were made in the report as necessary. NOAA's complete response is included as Appendix III.

## INTRODUCTION

Polar satellites orbit the North and South Poles 14 times daily at a distance of about 870 kilometers (540 miles) and transmit remotely sensed data to receiving stations as they pass over. The U.S. government operates two environmental polar satellite programs: the Department of Commerce operates the Polar-orbiting Operational Environmental Satellite (POES) system, and the Department of Defense (DOD) operates the Defense Meteorological Satellite Program (DMSP). POES and DMSP have distinct but similar capabilities for gathering data on weather and climate.

In September 1993, the Vice President recommended converging POES and DMSP into one system in his National Performance Review report, *Creating A Government That Works Better & Costs Less*. By May 1994, a Presidential directive was issued calling for the convergence of the two systems into the National Polar-orbiting Operational Environmental Satellite System (NPOESS). The purpose of convergence is to reduce overall life-cycle costs by combining civilian and defense missions, thereby reducing the number of U.S. operational polar-orbiting satellites from four to two.

Figure 1. NPOESS Constellation

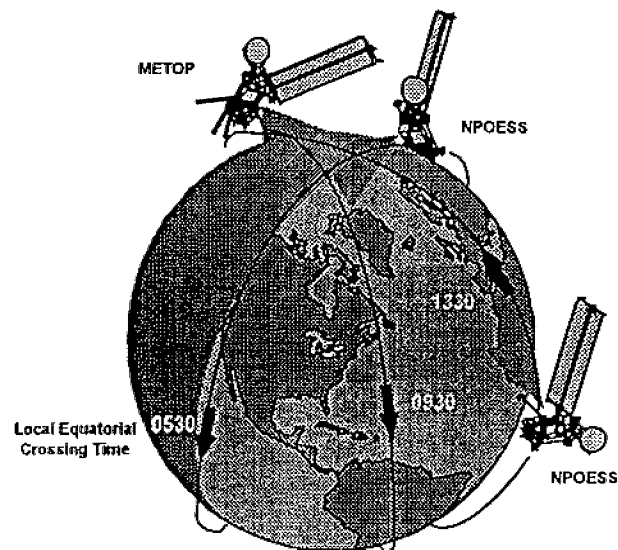
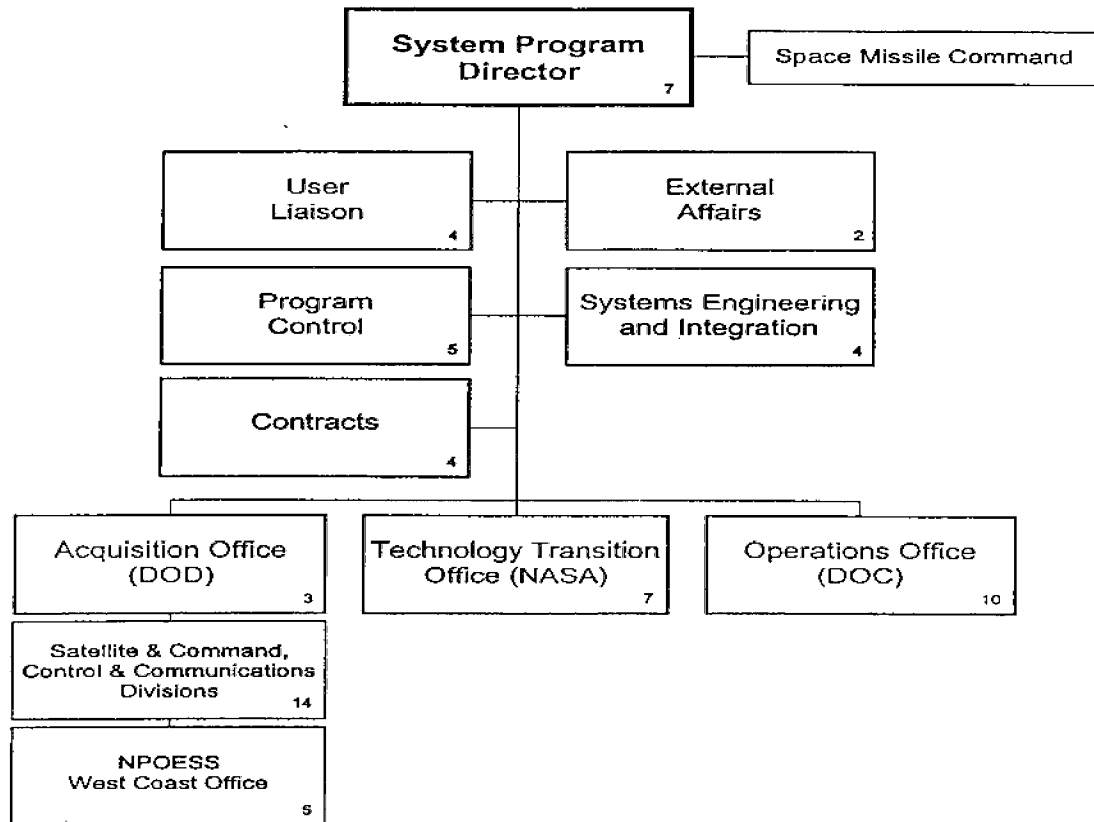


Figure 1 represents the converged on-orbit satellite constellation of two U.S. satellites and one European

Meteorological Operational (METOP) program satellite that will carry some instruments furnished by the U.S. government. The new system design will increase the operational life span of each satellite from 42 months for POES and DMSP to 84 months for NPOESS. In 1996, initial life-cycle program costs were projected at \$7.8 billion, a savings of \$1.3 billion from the estimated \$9.1 billion projected for acquiring and operating separate civilian and defense polar-orbiting satellite systems. Later in 1996, the program was restructured and the life-cycle cost estimate was reduced to \$6.7 billion. Estimated NPOESS life-cycle costs include acquisition and operation of the five satellites that will meet civil and defense operational requirements through 2018.

Figure 2. Integrated Program Office Organizational Structure (May 1997)



NPOESS is being managed by an Integrated Program Office (IPO). Established within Commerce in October 1994, IPO reports to the Executive Committee (EXCOM) composed of the Under Secretary of Commerce for Oceans and Atmosphere, the Under Secretary of Defense for Acquisition and Technology, and the Deputy Administrator of the National Aeronautics and Space Administration (NASA). Administratively, IPO reports to the National Oceanic and Atmospheric Administration's National Environmental Satellite, Data, and Information Service. IPO currently has 65 staff, 40 from DOD (mostly the Air Force), 20 from NOAA, and 5 from NASA. Figure 2 outlines IPO's organizational structure by program area and number of staff.

The IPO system program director, who is responsible for day-to-day management, reports to EXCOM. EXCOM provides policy guidance and ensures sustained agency support of NPOESS. Functional areas of responsibility are clearly defined according to the expertise of contributing agencies: DOD, acquisition; Commerce, operations; and NASA, technology. DOD is primarily



# ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

responsible for acquiring the converged satellites, and Commerce for operating them. NASA's role is to foster the transfer of technology to NPOESS from its Mission to Planet Earth/Earth Observing System, Earth System Science Pathfinder, and New Millennium programs (advanced research polar-orbiting satellites), and other government and commercial satellite efforts.

In accordance with the Presidential directive, NPOESS acquisition, development, and program management are being administered using DOD 5000 series acquisition policies and directives. These directives describe a disciplined management approach for acquiring systems. IPO receives contract administration support from DOD's Space Missile Command. In addition, three contractors are conducting architecture studies and providing technical support during the risk reduction effort. IPO anticipates that one of these contractors will eventually become the system integration contractor.

## OBJECTIVES AND SCOPE

The NPOESS acquisition cycle takes about 10 years before delivery of the first operational satellite. We began reviewing the program on a limited basis in March 1997 and established comprehensive inspection objectives to be accomplished over several years as the program progresses. This is our first NPOESS inspection report. It presents a preliminary evaluation of the requirements process, acquisition strategy, and satellite availability planning, and provides a more thorough evaluation of the NPOESS life-cycle cost estimating methodology. We will issue other reports as circumstances warrant.

We conducted an initial evaluation of the requirements process and costs by reviewing IPO's *Integrated Operational Requirements Document* (IORD) and analyzing the process for defining critical data records (individual remote sensing parameters). We interviewed NOAA managers responsible for defining requirements and reviewed IPO's *Cost and Operational Benefits Requirements Analysis*, *Cost Analysis Requirements Description* (CARD), *Program Office Estimate*, and *Requirements Master Plan*. We interviewed officials from DOD's Office of Program Analysis & Evaluation to discuss NPOESS requirements and interviewed staff from IPO and the contractor that helped develop IPO's detailed cost estimates to understand the cost estimating process and the Cost As an Independent Variable (CAIV) approach IPO is following.<sup>1</sup> We did not evaluate the capability level of NPOESS.

---

<sup>1</sup>The CAIV philosophy, as defined by DOD acquisition policy, requires acquisition managers to establish aggressive but realistic objectives for all programs and follow through by trading off cost against performance and schedule, beginning early in the program (when the majority of costs are determined). In practice, to achieve the objectives, managers often include funding profiles, along with schedules and requirements, in request for proposals to keep the contractor proposal within funding limits.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

We evaluated the IPO acquisition strategy of awarding multiple contracts for critical sensors and algorithm development activities, general support, and architecture studies. We reviewed the acquisition program documentation required by DOD Directive 5000.2. These documents included the *Implementation Plan*, the *Single Acquisition Management Plan*, EXCOM *Acquisition Decision Memoranda*, *Acquisition Program Baseline Agreements*, *Test and Evaluation Master Plan*, *Defense Acquisition Executive Summaries*, and the *Service Cost Position*.

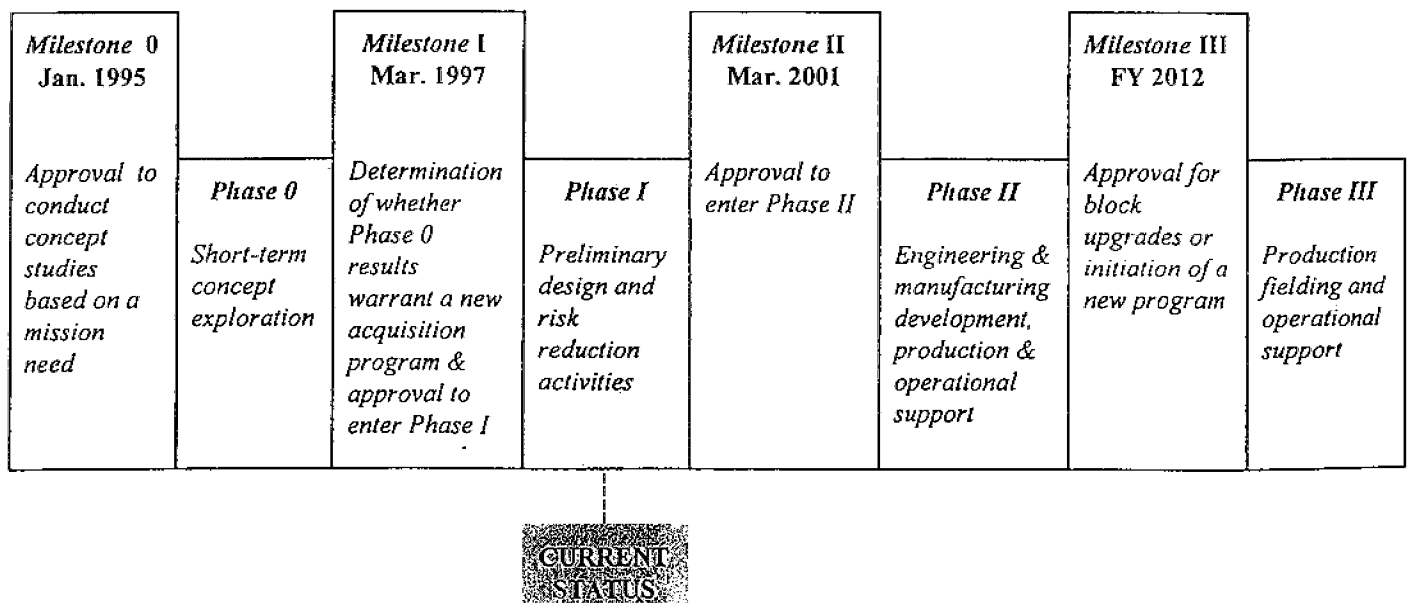
We also evaluated NOAA's Mission Planning Model, which is used to calculate the risk to operational success based on launch failure probabilities, system delivery dates, design life, mean mission duration for POES, and the need date for the first NPOESS.

This inspection was conducted in accordance with the Inspector General Act of 1978, as amended, and the *Quality Standards for Inspections*, March 1993, issued by the President's Council on Integrity and Efficiency.

### BACKGROUND

The DOD acquisition and management process is highly structured in logical phases separated by major decision points called milestones. Milestone approvals from EXCOM are used to assess program performance before proceeding from one phase to the next. Figure 3 depicts the current status of the NPOESS effort in relationship to its phases and milestones.

**Figure 3. Current NPOESS Status in the DOD Acquisition and Management Process**



## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

In 1996, the NPOESS acquisition approach was changed. The projected date for when the first NPOESS satellite would be needed was extended from 2004 to 2007 because later POES satellites are lasting longer than earlier ones and there are enough DMSP satellites under contract. The new acquisition strategy, which was endorsed by EXCOM, is entitled "optimized convergence." The program life-cycle cost estimate was reduced from \$7.8 billion to \$6.7 billion at the same time.

The original acquisition strategy called for a single contractor to develop a complete satellite system, including all subcontracting for sensor and algorithm development.<sup>2</sup> The optimized convergence strategy involves modular contracting. Under this approach, the acquisition is broken down into smaller, more manageable modules in which complex requirements are addressed incrementally by competing contractors. Specifically, in July 1997, multiple contracts for competitive program definition and risk reduction of critical payload sensors and corresponding algorithms were awarded. IPO also plans to award a satellite integration contract in FY 2001. In addition, optimized convergence includes early flight of NPOESS sensors during FY 2003-2010 on the last DMSP and POES satellites to further reduce the risk of using new technology in an operational mission.

A key part of Phase 0 activities was the development of a life-cycle cost estimate that became the basis for evaluating alternatives. Because of the importance of sound cost estimates, the DOD process for cost estimating consists of several stages. To start the process, IPO developed the CARD. The CARD defines and provides quantitative descriptions of systems characteristics used to estimate costs and becomes the common focal point for independent teams that prepare three estimates: the *Program Office Estimate*, *Independent Cost Estimate*, and *Component Cost Analysis*. IPO was responsible for developing the *Program Office Estimate*, and the Office of the Secretary of Defense's Cost Analysis Improvement Group (CAIG) prepared the *Independent Cost Estimate*. The *Component Cost Analysis* was prepared by the Air Force Cost Analysis Agency.

The Air Force Cost Analysis Agency's *Component Cost Analysis* was prepared using its own independent estimates for work breakdown structure<sup>3</sup> elements that it judged as high risk and/or high cost. Included in these items were all of the critical sensors and algorithm development. IPO provided Air Force Cost Analysis Agency with a description of its assumptions, methodologies, and estimates for the remaining work breakdown structure elements for review and approval. The *Service Cost Position* was established through an extensive reconciliation

---

<sup>2</sup>Sensors are the components of meteorological satellite instruments that convert input signals into quantitative information. Algorithms are computational procedures used to process quantitative information obtained from sensors.

<sup>3</sup>A work breakdown structure describes the various elements, including hardware, software, services, and data, that make up a system.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

process involving analysts from IPO and the Air Force Component Cost Agency. The Office of the Secretary of Defense's CAIG assessed the *Service Cost Position* by comparing it to its *Independent Cost Estimate*. The CAIG concluded that its Independent Cost Estimate was 4 percent higher than the *Service Cost Position*, and that the difference was statistically insignificant. The approved Air Force *Service Cost Position* became the NPOESS baseline life-cycle cost estimate.

The *Service Cost Position*, completed in February 1997, reflects a consensus funding profile associated with all the tasks required to meet NPOESS requirements. It provides a detailed estimate of life-cycle costs through 2018 according to the NPOESS work breakdown structure. The major work breakdown structure elements and associated costs are presented in Table 1. Most of the early funding, from FY 1997 through FY 2000, is for payload (sensor and algorithm) competitive design, system engineering and program management, system test and evaluation, government program office, and modification of POES and DMSP satellites.

**Table 1. *Service Cost Position* Work Breakdown Structure (WBS) Segments and Life-cycle Costs FY 1997 - FY 2018 (Then-Year Dollars, Millions [TY\$M])<sup>4</sup>**

WBS #	WBS Element	Costs [TY\$M]
1.1	Launch (5 Delta II Launch Vehicles)	\$ 319.8
1.2	Space Segment	2615.9
1.2.1	Satellite Integration & Test	143.7
1.2.2	Space (Spacecraft Bus)	721.3
1.2.3	Payload (Sensors & Algorithms)	1751
1.3	Command, Control, & Communications Segment	110.3
1.4	Interface Data Processing Software	367.6
1.5	System Engineering & Program Management	933.1
1.6	System Test & Evaluation	119.3
1.7	Systems Training	35.6
1.8	Peculiar Support Equipment	35.1
1.9	Common Support Equipment	0
1.10	Flight Support Operations (For Launches)	68.6
1.11	Storage	6.2
1.12	Reserved for Facilities	0
1.13	Initial Spares & Repairs	4.9
1.14	Operations & Support	1474.2
1.15	Government Program Office	399.9
1.16	Modifications (to DMSP & POES)	251.3
<b>Total Life-cycle costs</b>		<b>\$6,741.6*</b>

\*Does Not Add Exactly Because of Rounding

<sup>4</sup>TY\$M is defined as the life-cycle cost estimates provided in budgetary base-year funding adjusted for future inflation. DOD requires programs to estimate life-cycle costs using base year dollars and TY\$M.



## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

IPO held a Milestone I decision meeting with EXCOM on March 10, 1997. As a result of the meeting, EXCOM issued an *Acquisition Decision Memorandum* on March 17, 1997, approving the acquisition strategy, acquisition program baseline, *Test and Evaluation Master Plan*, and *Single Acquisition Master Plan*. EXCOM also authorized IPO to move into Phase I, preliminary design and risk reduction activities. In addition, EXCOM directed the NOAA Chief Financial Officer and the DOD Comptroller for Program Budget to work with IPO and OMB to identify an appropriate funding approach. In May 1997, EXCOM approved the NPOESS revised budget and a 50/50 Commerce-DOD funding arrangement for FY 1995-2018, as shown in Table 2. This funding profile is slightly higher than the baselined *Service Cost Position* shown in Table 1 because it includes costs incurred before FY 1997.

**Table 2. NPOESS Revised Budget and Agency Contributions, FY 1995-2018 TY\$M**

	FY 1997 & Before	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
Commerce	\$ 55.5	\$ 51.5	\$109.4	\$125.3	\$ 184.4	\$ 266.8	\$ 293.2	\$ 2,317.8	\$3,403.9
DOD	55.5	51.5	109.4	125.3	184.4	266.8	293.2	2,317.8	3,403.9
TOTAL	\$ 111.0	\$103.0	\$218.8	\$250.6	\$ 368.8	\$ 533.6	\$ 586.4	\$ 4,635.6	\$6,807.8

Phase I activities were initiated with a full and open competitive request for proposals (RFP) for preliminary sensor and algorithm design in March 1997. IPO awarded six contracts for the five critical sensors and algorithm development, as shown in Table 3. The Visible/Infrared Imager Radiometer Suite (VIIRS) and the Conical Microwave Imaging Sounder (CMIS), two of the most complex and expensive of the five sensors, will satisfy the vast majority of the data requirements. VIIRS will collect visible and infrared radiometric data of the Earth's atmosphere. CMIS will collect global microwave radiometry and sounding data to produce microwave imagery and other meteorological and oceanographic data. The remaining requirements will be satisfied by the Cross Track Infrared Sounder (CrIS), which will measure the Earth's radiation to determine the vertical distribution of temperature, moisture, and pressure in the atmosphere; the Ozone Mapper and Profiler Suite (OMPS), which will collect data to permit the calculation of the vertical and horizontal distribution of ozone in the Earth's atmosphere; and the Global Positioning System (GPS) Occultation Sensor (GPSOS), which will measure the refraction of radio wave signals from GPS and Russia's Global Navigation Satellite System to characterize the ionosphere. GPSOS will also be used for spacecraft navigation.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

**Table 3. NPOESS Critical Payload Sensor and Algorithm Phase I  
Contractors and Associated Costs**

Critical Sensor	Contractor	Cost (\$M)
VIIRS	ITT Aerospace/Communications Division	\$ 26.6
	Hughes Santa Barbara Remote Sensing	27.4
CMIS	Ball Aerospace & Technologies Corporation	30.6
	Hughes Space & Communications Company	32.1
CrIS	ITT Aerospace/Communications Division	9.1
	Hughes Santa Barbara Remote Sensing	9.3
OMPS	Ball Aerospace & Technologies Corporation	5
	Orbital Science Corporation	4.9
GPSOS	SAAB Ericsson Space AB	3.9
<b>Total</b>		<b>\$148.9</b>

Design contracts for VIIRS, CMIS, CrIS, and OMPS were awarded to competing contractors on a competitive cost-plus-fixed-fee basis. The contractors' designs will be evaluated separately through preliminary design reviews, after which IPO will solicit design improvements. The contractors' proposal responses will contain the final sensor and algorithm design and associated pricing for Phase II engineering and manufacturing development, and production. IPO will select one contractor for each sensor and will proceed to critical design review. Design of GPSOS was awarded to a single contractor on a fixed-price basis. The contractor will follow the same design and pricing process as the other design contractors. The schedules for preliminary design review and contractor selection vary for each sensor, with dates ranging from October 1998 to August 2000 for preliminary design review, and December 1998 to October 2000 for contractor selection.

In order to proceed into Milestone II, EXCOM must agree that the following Phase I exit criteria have been met: (1) completing preliminary design reviews for the VIIRS, CMIS, and CrIS payload sensors; (2) developing detailed risk reduction/mitigation plans for those sensors; (3) identifying and developing risk reduction/mitigation plans for other critical system areas; and (4) updating the major program documents, including requirements, cost benefit analysis, test plan, acquisition plan, and life-cycle cost estimates.

Milestone II is scheduled for March 2001. Phase II activities commence with the selection of a contractor for total system integration. Five satellites will be procured through this contract. Phase III, which will follow EXCOM's approval of Milestone III, is scheduled to begin in the first quarter of FY 2012. This phase is reserved for the procurement of an additional block of satellites or the initiation of a new program and related operational support. Satellites are projected to be launched and operated during phases II and III.

## OBSERVATIONS AND CONCLUSIONS

The NPOESS acquisition process is well planned. However, NPOESS life-cycle cost estimates for critical sensors and algorithms are overstated because IPO failed to reduce its funding profile for Phase II to reflect lower than estimated Phase I contract awards.

### I. NPOESS Acquisition Process Is Well Planned

The NPOESS initial requirements, acquisition, and satellite availability modeling processes are well planned. Initial requirements definition was well structured and provided a reasonable framework for collecting and consolidating Commerce and DOD user requirements. The acquisition strategy adopted under "optimized convergence" conforms to the latest federal guidance and promotes competition and risk reduction. NOAA's satellite availability planning model incorporates past performance and probability to determine NPOESS need dates to ensure continuous operational coverage.

#### A. Requirements Process Is Well Structured

We reviewed the structure IPO used to develop the *Integrated Operational Requirements Document*, but did not evaluate the reasonableness of the functional capability levels of the requirements. To manage the requirements process, IPO created a *Requirements Master Plan*. The plan defines the NPOESS requirements process, describes the approval process for the IORD, and outlines the roles, responsibilities, and relationships of the participating agencies.

Agency mission needs were defined by a Joint Agency Requirements Group composed of the primary users of operational polar-orbiting satellite data. The requirements group includes Commerce's National Environmental Satellite, Data, and Information Service, National Weather Service, National Ocean Service, Office of Oceanic and Atmospheric Research, and Office of Global Programs; DOD's Oceanographer of the Navy, Air Weather Service Director of Operational Requirements, Air Force Space Command Director of Current Operations, and Department of the Army Deputy Chief of Staff for Intelligence, Battlespace Surveillance Division; and NASA's Goddard Space Flight Center.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

A Senior Users Advisory Group serves as a central focus for operational requirements and approves the IORD developed by the requirements group. The advisory group is composed of the Air Force's Directors of Weather and Operations for Space Command; the Navy's Oceanographer; NOAA's Assistant Administrators for Weather Services, Satellite and Information Services, and Oceanic and Atmospheric Research; NASA's Science Division Director for the Office of Mission to Planet Earth; and, DOD's Joint Staff Director for Force Structure, Resources, and Assessments.

The Joint Agency Requirements Council, composed of DOD's Vice-Chairman for the Joint Chiefs of Staff, Commerce's Deputy Under Secretary for Oceans and Atmosphere, and NASA's Deputy Associate Administrator for the Office of the Mission to Planet Earth, adjudicates any requirements issues not resolved by the advisory group and provides final approval of the IORD. According to the NPOESS *Requirements Master Plan*, the IORD must be updated before each milestone.

IPO's requirements process follows DOD's acquisition policy, which requires cost-benefit trade-off analysis in meeting user needs. In order to start Phase I activities, IPO had to gather requirements and conduct cost-benefit analysis to assess the feasibility of meeting the requirements within predefined cost ceilings and need dates. As presented at Milestone I, the IORD contained 70 performance parameters identified by Commerce and DOD users as critical to meeting mission needs, of which six were "key." A key performance parameter is so significant that failure to meet the threshold level is cause for the system to be reevaluated or the program to be reassessed or terminated.<sup>5</sup> The *Cost and Operational Benefits Requirements Analysis* report, completed before Milestone I, documents the steps taken to identify the NPOESS alternatives.

According to IPO, the alternative selected provided the best cost, benefit, and performance trade-off and met 61 of the 70 performance parameters. The nine parameters that were not met were deemed impractical to include at this time because of their size, weight, or complexity. Part of Phase I activities includes research and development contracts to explore industry's ability to meet these nine parameters for possible inclusion later. Research and development efforts focused on these parameters are important because these efforts provide essential information needed to improve NOAA and DOD mission needs.

DOD policy calls for requirements and associated alternatives to be reassessed for each milestone. The requirements analysis and preferred alternative presented for the Milestone II

---

<sup>5</sup>The DOD policy for identifying user requirements requires that they be specified in terms of minimum and maximum capability levels. The minimum level is called "threshold," and the maximum level, "objective."



## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

decision should be thoroughly evaluated, documented, and endorsed by the user community and should reflect the industry's and the government's ability to meet these requirements in a cost-effective manner. Thoroughly substantiated and documented requirements are important, especially for NOAA, since it did not have an approved requirements document before the NPOESS IORD. NOAA and DOD users should be primary players in creating an approved requirements document because DOD policy also requires IPO to actively involve the user community in the ongoing Phase I cost-benefit trade-off analysis preceding Milestone II.

Our future work will assess how effective IPO is in including the users in the process of making trade-offs that provide for acceptable levels of cost and risk. We will also determine to what extent requirements and benefits are reevaluated before Milestone II in March 2001.

### *B. Acquisition Strategy Follows Federal Guidance for Reducing Risk*

IPO's acquisition strategy addresses the criteria established by OMB and the Federal Acquisition Regulation for mitigating procurement risk. IPO's acquisition strategy, outlined in the *Single Acquisition Management Plan*, was approved by EXCOM at Milestone I. The plan outlined steps to reduce risk including modular contracting, which involves breaking large acquisitions into smaller, more manageable modules that enhance the likelihood of achieving workable solutions. The plan also includes competitive prototyping, which entails selecting contractors to produce prototypes of their design so that the agency can select the most cost-effective design concept for further development or production. OMB's Circular A-11, *Capital Programming Guide*, identifies modular contracting and competitive prototyping as two of the tools that agencies should use to mitigate procurement risk. IPO's use of full and open competition for award of the critical sensor design contracts is also supported by the OMB guide as a risk reduction strategy.

The Federal Acquisition Regulation, Part 35, states that "projects having production requirements as a follow-on to research and development efforts normally progress from cost-reimbursement contracts to fixed-price contracts as designs become more firmly established, risks are reduced, and production tooling, equipment, and processes are developed and proven." IPO's *Single Acquisition Management Plan* generally follows this approach. After IPO's selection of the Phase II sensor contractors, the contracts awarded for the continued development and production of individual sensors will be cost-plus-award-fee. According to the plan, this contract type will remain in effect until the sensors for the first satellite are fully developed, tested, and delivered. The remaining sensors will be acquired on a fixed-price-incentive-fee contract basis. IPO's use of fixed-price contracting for a portion of the production effort, as the Federal Acquisition Regulation points out, seeks to balance cost and risk.

*C. NOAA Model Aids in NPOESS Planning*

We believe that NOAA's mission planning model is a reasonable tool for assessing the need date for the first converged satellite. IPO relies on NOAA and DOD assessments of need to determine when the first NPOESS satellite should be available. Both agencies use models to assess satellite need dates and to assist in acquisition planning. NOAA recently started using the mission planning model developed by NASA. This model uses a probabilistic approach (Monte Carlo simulation) that analyzes 1,000 scenarios of satellite life spans based on assumptions provided by NOAA. These assumptions include probability of launch vehicle failure, time to end of design life, and past history of the life of operational polar satellites.

Before using the model, NOAA did not employ a scientific system for including all these factors into launch planning dates, and as a result, its assumptions for satellite life were overly conservative. For example, the original scheduled need date for the first NPOESS was 2004, which required the start of the acquisition in 1994. Using the model, NOAA now identifies a need date of 2007. Our evaluation of the use of the model and its results found that the model provided an improved method for determining satellite availability.

**II. Life-cycle Cost Estimates for Critical Sensors and Algorithms Are Overstated**

IPO awarded Phase I contracts for much less than it budgeted. IPO reduced its Phase I budget to reflect the contract award amounts. However, IPO did not adjust the engineering and manufacturing development and production Phase II cost estimating assumptions to reflect the cost reductions being realized in Phase I. Moreover, IPO does not plan to update the assumptions until Milestone II in 2001. As a result, we believe that NPOESS life-cycle costs for critical sensors and algorithms could be seriously overstated. Overstated cost may be due to an unnecessarily high contingency that resulted from IPO's cost estimating assumptions. IPO explained that the contingency is not high and is needed for uncertainty due to the complexity of the program. We believe that IPO's contingency amount is excessive and that Phase II cost estimates should be revised now to ensure the success of the Cost As an Independent Variable approach and the availability of up-to-date, accurate information for use by decision-makers.

*A. Short-Term Funding Profile Adjustments Do Not Address Cost Estimating Anomaly*

IPO reduced the NPOESS funding profile twice after agreeing to its new optimized convergence program at Milestone I and revised life-cycle costs. However, it did not adjust its life-cycle cost estimating assumptions to reflect these adjustments. Phase I yielded cost estimates that were approximately 43 percent higher than the contractors' estimates. But IPO did not reduce Phase II cost estimates to reflect the Phase I reductions. The cost projection as shown in the baseline *Service Cost Position* was \$264 million for Phase I critical sensors. As shown previously in

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

Table 3, page 8, actual Phase I contracts were awarded in July 1997 for \$149 million, nearly \$115 million (or 43 percent) less than the amount presented in the *Service Cost Position*.

In November 1997, IPO presented EXCOM with its first revised baseline that reflected the sensor contract savings in fiscal years 1998 through 2000, reductions in management reserves and FY 1998 appropriations, and anticipated reductions in the FY 1999 OMB budget passback. This revised baseline shows that approximately \$114.6 million in reductions were taken in the short-term funding profile for critical sensor and algorithm costs, equaling the difference between the *Service Cost Position* and estimated contractor Phase I costs (see Table 4). IPO explained that EXCOM, in an October 1997 meeting, was concerned about eliminating all of the contract savings and management reserve and advised IPO to add back \$23.4 million for a management reserve, creating a net reduction of \$91.2 million. We were unable to track IPO's short-term reduction of \$91.2 million to actual work breakdown structure elements in the long-term funding profile, which shows a net reduction of only \$75.6 million (see Appendix II). IPO neither assessed why the sensor contractor's estimates differed from the *Service Cost Position* estimates nor projected these costs savings into the out years.

Table 4. Short-Term Funding Adjustment to NPOESS First Revised Baseline for Critical Sensors and Algorithms

Funding Adjustments	FY\$M
<i>Service Cost Position</i> (FY 97 - FY 00)	\$263.6
Less: Contractor Estimates (FY 97 - FY 00)	149
<i>Difference in Service Cost Position Versus Estimate</i>	114.6
Less: IPO Management Reserve	23.4
Funds Used for Budget Cuts	\$91.2

In January 1998, IPO revised the baseline again to meet a lower than anticipated funding profile issued in the FY 1999 OMB Passback. Changes to the program as a result of the revision include delaying the first satellite delivery by 6 months (January to July 2007), limiting modifications to DMSP and POES for early flight of NPOESS sensors, delaying the work breakdown structure command, control, and communications segment by 2½ years, and applying lower DOD inflation indices to each work breakdown structure element to arrive at the January 1998 *Service Cost Position* (TY\$M) bottom line. This second revised baseline also reduced the size of the management reserve from \$23.4 million to \$15.5 million. However, even though IPO changed

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

the baseline, it neither determined specifically where its sensor contract costs were less than budgeted nor projected these savings into the out years.

The 43 percent difference between the *Service Cost Position* estimate and Phase I contractor cost signals a potentially significant overestimate in NPOESS Phase II critical sensor and algorithm life-cycle costs, which were estimated at almost a billion dollars. We believe the magnitude of the difference between the original Phase I cost estimate and the contract award amounts for the critical payload sensors and algorithms points to the need to reassess the assumptions used in establishing the NPOESS life-cycle cost estimate presented in the *Service Cost Position*. This is important because IPO used the same assumptions in estimating Phase I and II costs. When we questioned IPO officials about the assumptions used in life-cycle cost estimating processes, they explained that the difference between the budgeted cost and the award amount was a planned contingency for size, weight and power margins, and risk based on the relative uncertainty inherent in developing new technology, and was part of its overall acquisition strategy. Based on IPO's collective experience in estimating management reserves, requirements growth, CAIV needs, and potential budget cuts, IPO believes the amount of contingency is not unreasonable. However, we believe that the planned contingency is excessive due to inaccurate assumptions made about the size, weight, power parameters, or other factors.

To estimate life-cycle cost, IPO used a series of steps. First, as required by DOD 5000.2, it developed the *Cost Analysis and Requirements Description*, which defines and provides quantitative descriptions of payload size, weight, and power that are used to derive cost estimates. For the sensor payloads, IPO used notional designs for NPOESS instruments from studies performed by Phase 0 contractors. These designs formed the basis for making decisions about the amount of margin to add for uncertainty inherent in developing new technology. Next, IPO estimated the cost by adding margins to reflect the assumptions made about the amount of difficulty and related cost that industry may encounter. The designs for all of the critical sensors were considered essentially immature and therefore were assigned higher margins. For example, weight margins ranged from 30 to 50 percent. The cost estimate with margins was termed the point estimate.

To obtain the amount used for the budget estimate, IPO increased the point estimate by a risk factor. IPO used a probability distribution cost curve to create a risk factor that accounted for technical and cost estimating uncertainties and design heritage. According to IPO, the margins and risk assumptions created a 26 percent contingency for Phases I and II. However, when IPO provided the Phase I funding profiles in the RFP for the critical sensors and algorithms, the target it presented was 36 percent less than the amount budgeted. IPO explained that the 36 percent included an additional 10 percent in the event that the contractor's proposals came in higher than the RFP profile and to allow for expected development problems. However, instead of coming in higher than the RFP profile, the contractor estimates for meeting performance and schedule



~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

requirements came in lower than the profile. The total difference was 43 percent less than the amount budgeted.

IPO believes that the 26 percent Phase II contingency is needed to accommodate size, weight and power growth, and risk over the course of development. We question IPO's assumption that a 26 to 36 percent contingency is reasonable, especially since the contractors' proposals show that they can meet threshold requirements with even less funding in Phase I. The large difference between estimated life-cycle cost and contract award amounts points to the need to reassess NPOESS cost estimates.

*B. Life-cycle Cost Estimates Should Be Adjusted Without Delay*

According to IPO, as originally planned, the review of the life-cycle cost estimates for subsequent acquisition phases will begin 15 months before Milestone II, which is currently scheduled for March 2001. We believe, however, that Phase II cost estimates should be revised now to ensure that decision-makers have the most current, accurate information to make informed decisions about asset accountability. We believe there are significant advantages to revising life-cycle cost estimates now. First, presenting lower Phase II funding profiles complies with the intent of the DOD CAIV philosophy by showing limited but *realistic* budget profiles to help control costs. Second, presenting lower Phase II funding profiles complies with DOD and OMB policies that require decision-makers, such as EXCOM, to have current and accurate information to make budgetary decisions regarding asset accountability.

The CAIV strategy was established to reduce life-cycle costs. The strategy entails setting an aggressive, realistic cost objective for acquiring the system, and managing risks to obtain these objectives. According to DOD guidance, the CAIV process is twofold. First, it is essentially a planning activity establishing and adjusting program cost objectives through cost-performance analyses and tradeoffs. Second, CAIV involves executing a program in a way to meet or reduce stated cost objectives. For example, program managers are encouraged to include cost objectives in RFPs and contracts as an incentive for industry to meet or better them. DOD 5000.2-R also directs program managers to achieve a cost objective that is less than its approved budget profile.

IPO's implementation of the CAIV philosophy followed this strategy. However, IPO included a cost objective in the RFP for the five critical sensors that was 36 percent lower than its budget profile. As intended with the CAIV philosophy, IPO was able to award contracts that meet requirements at 43 percent less than budgeted. Since industry has indicated that it can meet IPO's requirements at a much lower cost than originally estimated, IPO needs to reevaluate its estimate.

OMB and DOD have specific criteria for establishing life-cycle costs and reporting them to decision-makers. The life-cycle cost estimating process for NPOESS and each of its work

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

breakdown structure elements has been a highly structured, finely orchestrated, and intensive cross-cutting activity. The DOD CAIG, with representatives from Commerce and NASA, reviewed the cost estimates and prepared the NPOESS *Independent Cost Estimate*. This process allowed EXCOM decision-makers and Commerce, DOD, and OMB representatives to fully understand the total costs associated with the optimized polar convergence effort at Milestone I. IPO originally followed the process outlined by DOD Directive 5000.2 in developing the CARD, which led to the *Service Cost Position*. However, IPO departed from the directive when it did not analyze its life-cycle cost estimates for potential reductions based on the results of the Phase I contract awards. Without analyzing these estimates, IPO cannot ensure that decision-makers are receiving the most accurate information.

OMB Circular A-11 requires agencies to present realistic annual budget estimates that include budget data for the past, current, and upcoming budget years, as well as for the nine years following the budget year. Life-cycle costs form the basis for the annual budget submission to the Departments and OMB. The Circular A-11, *Capital Programming Guide*, reinforces this concept and states that agency annual (budget) submissions should demonstrate that the asset request is justified primarily by cost-benefit analysis, including life-cycle costs; that all costs are understood in advance; and that cost, schedule, and performance goals for the procurement are clearly identified and progress toward achieving them is measured using an earned value management system<sup>6</sup> or similar system.

In practice, information from the contractor's earned value management system should be incorporated in the agency's financial management and control system. For example, IPO could compare its *Service Cost Position* estimate with actual, scheduled, planned, and estimate at completion data, by WBS element and sub-element, at NOAA's satellite quarterly progress reviews. By tracking the amount budgeted to the actual cost realized, agencies will have the information to give decision-makers a clear understanding of how resources are connected to results. Without reassessing the assumptions it uses in creating its life-cycle cost estimates, IPO will not be able to provide realistic information to OMB.

In addition, DOD 5000.2 requires program managers to maintain a current estimate of the program being executed. Program managers must make periodic reports so that decision-makers, like EXCOM or Commerce and DOD officials, have adequate information to oversee the acquisition process. IPO recognizes that accurate information is important for decision-makers and does provide information about Phase I cost estimates. However, if IPO does not update

---

<sup>6</sup>Earned value is a management technique that relates resource planning to schedules and to technical, cost, and schedule requirements. All work is planned, budgeted, and scheduled in time-phased "planned value" increments constituting a cost and schedule measurement baseline.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

Phase II life-cycle cost estimates now, it will not be able to comply with the directive and will give these decision-makers insufficient information for program oversight.

DOD CAIG also requires that each CARD be considered a "living" document that is updated for each EXCOM milestone review, if not annually. The DOD directive states that the life-cycle cost estimates will be comprehensive and explicitly based on the program objectives, operational requirements, and work breakdown structure. These estimates are also required to be neither optimistic nor pessimistic, but based on a careful assessment of risks and reflecting a realistic appraisal of the costs most likely to be realized. As a result of IPO's not fully adjusting the life-cycle cost estimate, the revised *Service Cost Position* is neither accurate nor reflective of a realistic appraisal of costs most likely to be realized.

A 43 percent reduction in the funding profile early in the acquisition cycle represents a large difference from the assumptions used to develop life-cycle cost estimates. The CAIV process depends on realistic budget estimates that can be used for cost, schedule, and performance tradeoffs. An excessively high Phase II funding profile will not provide program managers an incentive for building on the success of the Phase I CAIV process nor provide reasonable budget and cost objective information to decision-makers. Managers in Commerce, DOD, and OMB need to know when significant changes occur, why they occur, and to what extent they affect the remainder of the program. Access to the most current, relevant information will help them make better decisions. Early recognition of these savings will also provide additional incentive to control costs in subsequent phases. If more funding is needed in the future based on the final outcome of Phase I, it should be requested and justified at that time.

### RECOMMENDATIONS

We recommend that the Department's Under Secretary for Oceans and Atmosphere work with EXCOM and IPO to:

- (1) Examine risk, complexity, margins, and other relevant assumptions used in the CARD for estimating Phase I critical sensors and algorithm funding profiles and report on how and where the 43 percent difference between estimated cost and contract award amounts occurred.

#### *Synopsis of NOAA's Response*

NOAA does not accept this recommendation. NOAA replies that IPO performed a very comprehensive assessment of risk before developing assumptions used in the CARD for estimating critical sensor and algorithm costs, and that its assumptions are backed by an industry study. NOAA further states that there were difficulties estimating costs for this phase of the acquisition because there was no standard estimating methodology. NOAA

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

states that in reviewing these initial estimates prior to releasing the RFP, IPO made a "conscious decision" to reexamine cost estimating assumptions, concluded that near-term estimates were flawed, and reduced them by 36 percent. The overestimates also resulted in an additional, unplanned contingency that created the 43 percent difference between estimated cost and contract award amounts. NOAA explains that the overestimates apply mostly to algorithm development, which will be substantially completed by the end of Phase I and that the difficulty experienced in estimating Phase I costs is not related directly to, or inherent in, the Phase II cost estimates.

### *OIG Comments*

NOAA's response addresses the quality of its process for determining assumptions and subsequent cost estimates. We agree that a comprehensive assessment of risk was completed prior to developing assumptions used in the CARD. However, the message of our report is that a 43 percent differential between estimated and contract award amounts for Phase I activities means that one or more components of the estimates may now be considerably overstated.

When questioned about the 43 percent differential, IPO explained that 36 percent of the differential was a planned contingency due to uncertainty inherent in developing new technology. Based on NOAA's response (see Appendix III, page. 5), IPO is now saying that this amount is not a contingency, but a fair assessment of weight growth and risk. However, allowances for weight growth (margin) and risk are used by IPO to define contingency. IPO then justifies the contingency with a 10-year-old Aerospace Corporation study which it did not provide during our review. We question whether a 10-year-old study, which analyzed 15 satellite systems over a 20-year period, is a good yardstick for setting weight growth contingency for NPOESS.

NOAA admits that its estimates for algorithm and hardware development were overstated. IPO's "conscious decision" to lower the cost estimate before issuing the RFP reinforces the need to reexamine its life-cycle cost estimates. Our analysis of IPO's cost estimates for a portion of critical sensor and algorithm development revealed a 60 to 80 percent overestimate in some engineering level-of-effort work. Based on IPO's decision to examine assumptions and lower cost estimates before releasing the RFP, it was able to save \$115 million from a total budget of \$264 million. The vast majority of development cost will be incurred in Phase II, and we have no assurance that Phase II cost estimates are any more accurate than Phase I estimates. With about \$1 billion slated for Phase II critical sensors, to the extent engineering level-of-effort estimates are used to justify these expenditures, the estimates require reexamination.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

We reaffirm our recommendation. NOAA should reevaluate the life-cycle cost estimating assumptions without delay.

- (2) Change any incorrect assumptions about risk, complexity, and margin used in the CARD, and revise the *Independent Cost Estimate*, *Program Office Estimate*, and *Service Cost Position* life-cycle cost estimates to reflect a reduced budgetary profile for the critical sensors and algorithms.

### *Synopsis of NOAA's Response*

NOAA does not accept this recommendation. NOAA states that it already continuously reviews each area to ensure that the assumptions and estimates properly reflect the most current and relevant information. NOAA further replies that risk, complexity, and margins are being examined and are internally tracked by IPO for the Phase I contracts. NOAA adds that the masses of both Phase I contractors' designs for CrIS have reached the CARD mass, including the 50 percent margin. Both Phase I designs for OMPS have used up 70 percent of the available CARD mass margin. The mass of one Phase I contractor's design for CMIS exceeds the CARD 50 percent mass margin. Finally, the Phase I contractor's design for GPSOS is about 2.5 times the CARD mass with margin. NOAA states that the designs are still preliminary and are continually being updated based on the results of cost/performance tradeoffs. Therefore, NOAA argues that any adjustment of the critical sensors' out-year life-cycle cost estimate profiles for reduced mass margins would be very premature. Further, preliminary contractor life-cycle cost estimates exceed the IPO CAIV targets and, in some cases, exceed the total funding in the current life-cycle cost baseline.

### *OIG Comments*

Our recommendation to change any incorrect assumptions about risk and complexity used in the CARD is intended to ensure that the credibility of the intricate process described in NOAA's response is maintained. Internal tracking of trade-offs and costs does not provide insight to the independent life-cycle cost evaluators and decision-makers.

Furthermore, the scenario described by NOAA sounds alarming--contractor mass margins are increasing to the level of NOAA margins and cost estimates are increasing to the point where they are exceeding NOAA budget estimates. However, NOAA has not stated what level of requirements are being proposed by the contractors as part of the CAIV trade-off process. Further, NOAA does not explain why margins are increasing, nor does it explain what requirements levels (threshold or objective) are being addressed in the contractor's life-cycle cost estimate. In addition, NOAA does not state what funding levels were shared with contractors and whether those funding levels may have

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

encouraged contractors to increase cost estimates. Based on the scenario described by NOAA, decision-makers should be concerned about and involved in rebaselining the entire program.

We believe actual contract award amounts for Phase I design and risk reduction activities--coupled with experience on these contracts to date with respect to meeting threshold requirements--are better indications of program costs than earlier estimates. NOAA's response to our first recommendation (that its difficulties in estimating Phase I costs resulted in an unplanned contingency that created the 43 percent differential) confirms our belief. At a minimum, to protect the credibility of the cost estimating process, IPO should correct any invalid assumptions based on the contract awards and experience to date and update the funding profile through FY 2008 to reflect OMB Circular A-11 requirements. We reaffirm our recommendation.

- (3) Reevaluate risk and complexity assumptions used for the remaining work breakdown structure elements and make any needed changes to the assumptions and related life-cycle cost estimates.

### *Synopsis of NOAA's Response*

NOAA accepts the recommendation and responds that it will initiate a detailed reevaluation of assumptions for all work breakdown structure elements 15 months before the Milestone I decision in March 2001. However, it contends that the risk assessment it performed for establishing the *Service Cost Position* satisfactorily addressed the risk and complexity assumptions for all NPOESS work breakdown structure elements.

### *OIG Comments*

NOAA accepts the recommendation but proposes no actions other than its normal cycle of reevaluating cost estimating assumptions in preparation for Milestone II. Under IPO's plan, the reevaluation would not start until around January 2000, and may not be concluded before the 2002 budget cycle. As discussed under our first recommendation, our analysis revealed a 60 to 80 percent overestimate in some engineering level-of-effort estimates. To the extent engineering level-of-effort estimates are used to justify all future NPOESS expenditures, these estimates require reexamination. Without conducting this analysis in a timely manner, budgets may be significantly overstated in the years before the analysis is completed. We believe the analysis should be conducted as soon as possible to ensure that the FY 2000 and FY 2001 budgets are accurate.

## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

- (4) Examine the reporting process of alerting the departments and EXCOM representatives of significant cost differentials between the amount budgeted and actual cost realized (e.g., earned value management system) for work breakdown structure elements.

### *Synopsis of NOAA's Response*

NOAA accepts this recommendation but adds that the process to ensure that the proper officials are informed about the program is well established and an integral part of IPO program management, and that the proper representatives within Commerce, DOD, and the EXCOM have been kept informed of all significant NPOESS issues including costs since the program's inception. NOAA also replies that contractor cost performance is being monitored by IPO through analysis of monthly or quarterly contractor reports.

### *OIG Comments*

NOAA's position is that it accepts this recommendation but does not acknowledge any reporting issues. NOAA implies that it keeps decision-makers informed. However, in August 1997, the Acting Chief Financial Officer and Assistant Secretary for Administration and the Assistant to the Secretary and Director, Office of Policy and Strategic Planning, threatened to replace its EXCOM representative for virtually excluding the Department from providing any input into decisions made by the EXCOM, and Department officials are still concerned about the quality of information provided. Further, we analyzed how long it took after issuing the RFP for decision-makers to be informed of the reduced funding profile. We found that it took seven months after the decision was implemented before decision-makers were informed.

We commend the IPO's monitoring of contractor estimated versus actual costs through periodic reports. We trust that the IPO and NOAA will use this information to keep the Department current on the status of NPOESS contractor costs and the accuracy of life-cycle cost estimates.

- (5) Produce an *Acquisition Decision Memorandum* to formally endorse a new baseline that updates cost, schedule, and technical performance parameters.

### *Synopsis of NOAA's Response*

NOAA did not fully agree with our final recommendation to issue an *Acquisition Decision Memorandum* to formally endorse a new program baseline. NOAA does not believe that a new memorandum is warranted based on the changes to the program and referenced its May 1997 memorandum. It acknowledges, however, that if the Congress makes significant reductions to the FY 1999 appropriations for the NPOESS program that



## ~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

---

affect critical sensor acquisition, sensor, and spacecraft design and development schedules, or risk reduction flight opportunities, IPO will be required to replan and potentially rebaseline the program.

### *OIG Comments*

NOAA implies that the May 1997 *Acquisition Decision Memorandum* is adequate. However, we found that this memorandum did not reflect IPO's corrective action to reduce its life-cycle cost estimate before issuing the RFP for critical sensors and algorithms. Consequently, the new life-cycle cost estimate was not reported to decision-makers until October 1997, seven months after the decision was made. NPOESS has already taken budget cuts, and there are recent changes in plans to fly NPOESS sensors on the last of the NOAA polar satellites, POES-N'. In addition to the need for a new cost baseline, the delivery date of the first NPOESS was delayed 6 months, and the command, control and communications segment was delayed 2½ years. Despite these significant cost and programmatic changes, a new life-cycle cost estimate has yet to be formally endorsed by decision-makers through an *Acquisition Decision Memorandum*. A new memorandum needs to be prepared as soon as possible.

NOAA's complete response is included as Appendix III of this report.

~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

Appendix I

Appendix I

Acronyms Used in This Report

CAIG	Cost Analysis Improvement Group
CAIV	Cost As an Independent Variable
CARD	Cost Analysis and Requirements Description
CMIS	Conical Microwave Imaging Sounder
CrIS	Cross Track Infrared Sounder
DMSP	Defense Meteorological Satellite Program
DOD	Department of Defense
EXCOM	Executive Committee
FY	Fiscal Year
GPS	Global Positioning System
GPSOS	Global Positioning System Occultation Sensor
IORD	Integrated Operational Requirements Document
IPO	Integrated Program Office
METOP	Meteorological Operational
NASA	National Aeronautics and Space Administration
NOAA	National Oceanic and Atmospheric Administration
NPOESS	National Polar-orbiting Operational Environmental Satellite System
OMB	Office of Management and Budget
OMPS	Ozone Mapper and Profiler Suite
POES	Polar-orbiting Operational Environmental Satellite
RFP	Request For Proposals
TY\$M	Then Year Dollars, Millions
VIIRS	Visible/Infrared Imager Radiometer Suite
WBS	Work Breakdown Structure

~~Procurement Sensitive~~

U.S. Department of Commerce  
Office of Inspector General

Inspection Report  
OSE-9593

Appendix II

Appendix II

Long Term Service Cost Position Net Reduction of \$75.6 Million in Total Life-cycle Costs

Work Breakdown Structure #	Title	Feb. 1997 Approved Baseline (TY\$M)	Nov. 1997 Revised Baseline (TY\$M)	(Net Reduction) or Increase
1.1	Launch (5 Delta II Launch Vehicles)	\$319.8	\$323.4	\$3.6
1.2	Space Segment	2615.9	2624.7	8.8
1.3	Command, Control & Communications Segment	110.3	112.9	2.6
1.4	Interface Data Processing Software	367.6	263.1	-104.5
1.5	System Engineering & Program Management	933.1	924.1	-9.0
1.6	System Test & Evaluation	119.3	120.2	0.9
1.7	Systems Training	35.6	34.6	-1.0
1.8	Peculiar Support Equipment	35.1	35.0	-0.1
1.9	Common Support Equipment	0.0	0.0	0.0
1.10	Flight Support Operations (For Launches)	68.6	69.2	0.6
1.11	Storage	6.2	6.2	0.0
1.12	Reserved for Facilities	0.0	0.0	0.0
1.13	Initial Spares & Repairs	4.9	4.9	0.0
1.14	Operations & Support	1474.2	1474.3	0.0
1.15	Government Program Office	399.9	397.5	-2.4
1.16	Modifications (To DMSP & POES)	251.3	217.4	-33.9
Total Life-cycle Costs		\$6,741.6*	\$6,607.5	(\$134.4)
Adjustments not included in revised baseline (Mostly for FY95-FY96 Milestone 0, Concept Exploration)		0.0	58.8	58.8
Total		\$6,741.6	\$6,666.3	(\$75.6)

\*Does Not Add Exactly Because of Rounding



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

SEP 30 1998

MEMORANDUM FOR: Johnnie Frazier  
Acting Inspector General

FROM: Paul F. Roberts *Paul F. Roberts*

SUBJECT: OIG Draft Inspection Report: NPOESS  
Acquisition Well Planned, but Life-cycle  
Estimates for Critical Sensors Are  
Overstated (OSE-9593)

Thank you for the opportunity to review and comment on the draft inspection report on the National Polar-orbiting Operational Environmental Satellite System (NPOESS) acquisition by the Integrated Program Office (IPO) of the National Environmental Satellite, Data, and Information Service. In general, we agree with the finding in the draft report regarding the process that has been established and implemented by the IPO to execute the NPOESS acquisition. In particular, we are pleased that you have concluded that the NPOESS acquisition process is well planned and in compliance with federal guidance.

During preliminary discussions between the Office of Inspector General staff and the IPO staff, there was general agreement that the recommendations in the draft report could be conditionally accepted, provided that explanatory information from the IPO concerning life-cycle cost estimates would be incorporated into the final OIG report. However, upon further consideration of the recommendations, and as discussed in the attached response, we do not agree that the life-cycle cost estimates for critical sensors and algorithms are overstated. Therefore, we cannot agree to Recommendations 1 and 2 as stated in the draft report.

The IPO staff is available to work with your staff to resolve any differences concerning the draft inspection report.

Attachments



ATTACHMENT 1  
RESPONSE TO IG REPORT OSE-9593

SECTION I: GENERAL COMMENTS ON FINDINGS

**Finding I: NPOESS Acquisition Process is Well Planned**

Comments: The Integrated Program Office (IPO) agrees with the comments in the draft report concerning the NPOESS acquisition process. We are pleased that the Inspector General (IG) recognizes that the initial requirements definition contained in the Integrated Operational Requirements Document (IORD) is well structured and provides a reasonable framework for consolidating user requirements. We are also encouraged by the IG's observations that the NPOESS acquisition strategy "conforms to the latest federal guidance and promotes competition and risk reduction" and that NOAA's mission planning model is a reasonable tool for the IPO to use to assess the need date for the first NPOESS satellite. Prior to the Milestone II decision, the IPO will ensure that the requirements specified in the IORD are thoroughly reevaluated, updated, documented, and endorsed by the user community and reflect the government's and industry's ability to meet the requirements in a cost effective manner.

## **Finding II: Life-cycle Cost Estimates for Critical Sensors and Algorithms Are Overstated**

The Integrated Program Office does not agree with the Draft report finding that the life-cycle cost estimates for Phase II development and production of critical sensors and algorithms are overstated. The following information is provided to clarify and document the IPO position on the Phase II life-cycle cost estimates.

### **A. Short-Term Funding Profile Adjustments Do Not Address Cost Estimating Discrepancy**

#### **Page 12, Paragraph 3 and Page 15, Paragraph 4:**

Page 12, Paragraph 3 states in part: "Moreover, the IPO does not plan to update life-cycle costs until Milestone II in 2001. As a result, we believe that the NPOESS life-cycle costs could be seriously overstated for the critical sensors and algorithms. This discrepancy may be due to fundamental weaknesses in the IPO's cost estimating assumptions."

Page 15, Paragraph 4 states in part: "The DOD [Department of Defense] CAIG reviewed the cost estimates and prepared IPO's *Independent Cost Estimate*."

**Comments:** The IG report infers that the NPOESS life-cycle cost baseline will remain more or less static until Milestone II. In reality, the life-cycle costs are updated continually by the IPO for significant changes in assumptions and funding. The current life-cycle cost baseline is more than \$350 million less than the Service Cost Position (SCP) due to a major program restructuring, contract awards, new inflation indices, reduced budgets, and full funding compliance requirements. The life-cycle cost estimates prepared by the contractors during Phase I are reviewed, analyzed, and discussed with the contractors at major milestone reviews, i.e., SRR [System Requirements Review], SFR [System Functional Review], etc., and at technical interchange meetings. An integral part of the IPO's life-cycle cost reviews are the assumptions on sensor mass, power, etc., used as a basis for estimating sensor hardware costs. When warranted, the IPO's estimating assumptions will be adjusted.

The life-cycle costs will continue to be updated as major changes dictate.

The DOD Cost Analysis Improvement Group's (CAIG) independent estimate was not prepared for the IPO. This estimate was accomplished per the guidance in DOD Directive 5000.4 to test the reasonableness of the SCP. The directive establishes a set of very specific guidelines and outlines a comprehensive process for developing the CAIG independent cost estimate (ICE). The IG report refers to the DOD CAIG NPOESS independent cost estimate but does not mention the results which are contained in a report issued by the CAIG on March 3, 1997. In the report, the CAIG states that, "the CAIG life-cycle cost estimate is 4 percent higher than the SCP" and "the difference between life-cycle cost estimates is not statistically significant." The small difference between the ICE and SCP provides an important validation of the IPO cost estimating assumptions. The DOD CAIG also used different estimating methodologies than the IPO. By arriving at essentially the same cost with different estimating methodologies, the ICE supports the reasonableness of the SCP.

Page 13, Paragraph 1: States in part, "IPO's short-term reduction of \$91.2M does not track to actual work breakdown structure elements in the long-term funding profile, which shows a net reduction of only \$75.6M (see Appendix II). IPO neither assessed how its sensor contracts differed from its budget estimates nor projected these cost savings into the out years."

Comments: Appendix II of the draft report shows a comparison of the February 1997 approved baseline (SCP) and the revised baseline in November 1997. This comparison requires clarification. When the contract values were substituted for the Phase I estimates in the SCP, the result was a near-term (FY 1997 - FY 2000) reduction of \$91.2M (breakout provided to the IG showing the source of savings). The total reduction for FY 1997 - FY 2000 in the revised November 1997 baseline versus the SCP is \$154.9M compared to the \$91.2M. However, the revised baseline incorporates adjustments other than just substituting the contract values for the Phase I estimates. First, it includes the impacts



of compliance with the DOD requirement to fully fund versus incrementally fund satellite hardware end items, i.e., sensors, spacecraft bus, and satellite integration and testing. All satellite hardware end items were incrementally funded from the RDT&E appropriation (3600) in the February 1997 baseline. In the November 1997 revised baseline, satellite hardware end items after the first two were fully funded from the 3020 (Missile Procurement) appropriation to comply with the DOD requirement. Full funding stipulates that the total funding for a satellite hardware end item be budgeted in the first fiscal year of a funding requirement. The impact was to shift the funding requirements for some satellite hardware end items to earlier years and, thus, reduce the amount of inflation in the baseline. Second, the inflation indices for the 3600 and 3020 appropriations are different with the 3020 indices being higher. This offsets some of the inflation reductions due to full funding. Finally, the November 1997 revised baseline included adjustments in Work Breakdown Structure (WBS) elements other than just sensors to meet near term fiscal year budget constraints. This required schedule adjustments and rephasing of costs for WBS elements to later years which increased inflation. The difference between the February 1997 and November 1997 baselines is the net effect of substituting contract values, full funding, different inflation indices, and adjustments to meet budget constraints. A revised Appendix II, with explanations for differences in individual WBS elements, is attached (See Attachment 3).

Page 14 Paragraphs 1 and 2:

Paragraph 1 states in part: "However, we believe that the differences could be due to the cost assumptions made about the size, weight, or power parameters, or other factors."

Note: The differences referred to are the differences between the budgeted (SCP) cost for Phase I and contract award amount.

Paragraph 2 states in part: "For the sensor payloads, IPO used standard quantitative estimates of size, weight, and power provided by the Aerospace Corporation. Next, the IPO increased the estimates by adding margins to reflect

assumptions about the amount of difficulty and related cost that industry may encounter in meeting its requirements."

Comments: We believe that the size, weight, and power estimates with margin closely represent the ultimate system parameters for each sensor. The establishment of size, weight, and power estimates and, particularly, the basis of amounts added for margin, requires clarification. As noted in the IG report, the basic (no margins included) estimates for the critical sensors were based on modifications to the notional designs for NPOESS instruments from early Phase 0 contractor studies. The amount added by the IPO for margin was based on each instrument's level of development or technology maturity using the Aerospace Corporation's weight growth allocation table on page 41 of the Cost Analysis and Requirements Description (CARD). The basis for the table is an Aerospace Corporation analysis of data on satellite weight growth collected over a 20-year period. The analysis results, that were published in an Aerospace Corporation Quarterly Technical Report, showed that the average growth in the mission equipment (payload) weight for 15 satellite programs was 40 percent from inception to completion and about 20 percent from inception to Preliminary Design Review (PDR).

Page 14, Paragraphs 3 and 4:

Paragraph 3 states in part: "According to IPO, margins and risk created a 26 percent contingency for Phases I and II."

Paragraph 4 states in part: "IPO believes that the 26 percent Phase II contingency is needed to accommodate growth in the requirements from threshold to objective levels. We question IPO's assumption that a 26 to 36 percent contingency is reasonable, especially since the contractors' proposals show that they can meet threshold requirements with even less funding in Phase I."

Comments: We believe that the current baseline costs with the 26 percent included to account for weight growth and risk is our best estimate of the expected costs for NPOESS. Therefore, we do not believe that the 26 percent is contingency. We also believe that the 26 percent is

reasonable. Mass margins account for 19 of the 26 percent total. The amount of mass margin added to the basic weight of the critical sensors is reasonable given historical data and information on satellite development and the current status of the contractor Phase I preliminary designs. An Aerospace Corporation study covering satellite weight growth over a 20-year period showed that the average increase in mission equipment (payloads) for 15 satellite programs from authority to proceed to completion was 40 percent. The CARD mass margins for the five critical sensors were 30 to 50 percent. Currently, the masses of both Phase I contractors' designs for the Cross Track Infrared Sounder (CrIS) have reached the CARD mass with margin (50 percent). Both Phase I designs for the Ozone Mapping and Profile Suite (OMPS) have used up 70 percent of the available CARD mass margin, and the mass of one Phase I contractor's design for the Conical Microwave Imaging Sounder (CMIS) exceeds the CARD mass with margin (50 percent). The Phase I contractor's design for the Global Positioning System Occultation Sensor (GPSOS) is about 2.5 times the CARD mass with margin. The Phase I sensor designs are still preliminary, somewhat notional designs that are continually being updated based on the results of cost/performance tradeoffs. Given all of this and the fact that NPOESS is in Phase I of the acquisition process, we believe that the CARD margins to accommodate weight growth for the critical sensors are reasonable and that any adjustment of the critical sensors' out-year LCC profiles for reduced mass margins would be very premature.

#### **B. Life-cycle Cost Estimates Should Be Adjusted Without Delay**

##### **Page 15, Paragraphs 2 and 3:**

Paragraph 2 states in part: "Second, CAIV [Cost As an Independent Variable] involves executing a program in a way to meet or reduce stated cost objectives. For example, program managers are encouraged to include cost objectives in RFPs [Requests for Proposals] and contracts as an incentive for industry to meet or better them."

Paragraph 3 states in part: "IPO's implementation of CAIV

philosophy followed this strategy. DOD 5000.2-R directs program managers to achieve a cost objective less than its approved budget profile. NPOESS' cost objective is its budget profile. However, IPO included a cost objective in the RFP for the five critical sensors that was 36 percent lower than its budget profile."

Comments: Consistent with DOD 5000.2-R, the IPO has established CAIV cost objectives for the sensors that are less than the IPO's approved budget. However, these CAIV targets are for end item deliveries (post-PDR through sensor delivery) and were provided to the contractors after award of the Phase I contracts. The RFP profiles were set lower than the SCP Phase I budget profile for reasons other than meeting a stated cost objective (see below and the response to Recommendation 1). The IPO does not have a stated cost objective of ten percent less than its budget profile. However, the Approved Program Acquisition Cost section of the NPOESS Defense Acquisition Executive Summary (DAES) report identifies both an objective and threshold for its Approved Program Baseline (APB) costs as required by regulation. The APB cost objective (which is the approved budget) is 10 percent less than the APB cost threshold. The IPO intends to manage the NPOESS program within 10 percent of the APB threshold.

Page 16, Paragraph 1: States in part: "In practice, information from the contractor's earned value management system should be incorporated in the agency's financial management and control system. By tracking the amount budgeted to the actual cost realized, agencies will have the information to give decision-makers a clear understanding of how resources are connected to results. Without adjusting life-cycle cost estimates now based on actual costs incurred, IPO will not be able to provide realistic information to OMB."

Comments: The information from each risk reduction contractor's earned value management system is an integral part of the IPO's financial management and control system. The monthly or quarterly contractor Cost/Schedule Status Report (C/SSR) submissions are reviewed and analyzed to include a track of budgeted to actual costs. Based on the

statement in the IG report about not adjusting life-cycle cost estimates now based on actual costs incurred, it appears that they are equating the risk reduction contract award amounts to the actual costs that will be ultimately realized on the contracts. In reality, the contract award amounts are budgeted amounts. There is a high probability that the actual costs for the risk reduction effort will not be identical to the contract award amounts. As stated previously, adjustments to some of the contracts have been required due to the FY 1998 budget reduction. However, there is a larger issue regarding the adjustment of life-cycle cost estimates based on actual costs incurred in risk reduction. First, the actual costs are not known, and will not be known, until the contracts are completed. The costs in the contractors' earned value systems are budgeted amounts based on the contract awards. This is recognized by the IG in the statement regarding the tracking of the amount budgeted to actual cost realized. Second, the total amount (\$149M) awarded for the risk reduction contracts represents about 10 percent of the total life-cycle costs for the critical sensors in the current NPOESS baseline. Adjusting total life-cycle costs based on budgeted costs for 10 percent of the total would not seem to be either warranted or a prudent management decision.

Page 16, Paragraph 2 and Page 17, Paragraph 1:

Page 16, Paragraph 2 states: "In addition, DOD 5000.2 requires program managers to maintain a current estimate of the program being executed. Program managers must make periodic reports so that decision-makers, like EXCOM [Executive Committee] or Commerce or DOD officials, have adequate information to oversee the acquisition process. If IPO does not update life-cycle cost estimates now, it will not be able to comply with the directive and will give these decision-makers inaccurate information for program oversight."

Page 17, Paragraph 1 states in part: "Managers in Commerce, DOD, and OMB [Office of Management and Budget] need to know when significant changes occur, why they occur, and to what

extent they affect the remainder of the program. Access to the most current, relevant information will help them make better decisions."

Comments: We believe that the IPO maintains a current estimate of the program being executed and has provided necessary and relevant information on significant program changes to the Commerce, DOD, and OMB managers who are responsible for program oversight. The program life-cycle cost baseline was revised to reflect the risk reduction contract award amounts. In October 1997, the EXCOM was properly informed of the revised baseline, as recognized by the IG in paragraph 1 on page 13 of their report. The responsible managers in the Department of Commerce and DOD were provided current, relevant information for decision making. Based on the information, the managers overseeing the NPOESS acquisition decided that it was prudent to increase the costs estimates in risk reduction. The EXCOM was very concerned that the IPO was too aggressive when establishing its Phase I RFP funding profiles and eliminating all management reserve after the contracts were awarded. Consequently, the EXCOM instructed the IPO to add back a management reserve of \$23.4M to the risk reduction phase. This fact is also recognized in the IG report.

Page 16, Paragraph 3: States in part: "These estimates are required to be neither optimistic nor pessimistic, but based on a careful assessment of risks and reflecting a realistic appraisal of the costs most likely to be realized."

Comments: We believe that the SCP estimate reflected a realistic appraisal of the costs most likely to be realized. The IPO performed a very comprehensive risk assessment to both validate the realism of the SCP estimate and establish the most likely costs. A primary emphasis of the risk assessment was to ensure that estimating uncertainty caused by inaccuracies inherent in estimating methodologies and estimating risk due to input parameters (e.g., weight, power, etc.) used in cost estimating relationships were accounted for. The risk assessment also addressed the impacts of technical risk and design heritage on the satellite hardware costs. A Monte Carlo simulation was performed to produce a cumulative probability distribution curve for both individual WBS elements and total life-cycle costs. The point chosen as the most likely total life-cycle costs for budgeting purposes was the 50 percent probability

costs from the curve. To achieve the 50 percent probability point, the costs for individual WBS elements were adjusted either upward or downward. The 50 percent probability point represents what the IPO expects the NPOESS costs to be based on the results of their extensive risk analysis.



## SECTION II: RESPONSE TO RECOMMENDATIONS

Recommendation 1: Examine risk, complexity, margins, and other relevant assumptions used in the CARD for estimating Phase I critical sensor and algorithm funding profiles and report on how and where the 43 percent difference between estimated cost and contract award amounts occurred.

Response: NOAA does not accept this recommendation. The following information is provided to clarify the IPO position on cost estimates for Phase I funding profiles and to document the 43 percent difference between Phase I estimated cost and contract award amounts.

The IPO performed a very comprehensive, diligent assessment of risk, complexity, and margins for critical sensors prior to development of the CARD information. Based on that assessment, we believe that the current CARD information on sensor margins is reasonable, given both history and the status of the Phase I contractor preliminary designs. An Aerospace Corporation study showed that the mass of mission equipment (payloads) for 15 satellite programs grew an average of 40 percent from authority to proceed to completion. The designs for all of the critical sensors were considered essentially immature. The notational designs for CrIS, OMPS, and VIIRS were categorized as "Preliminary sketches or descriptions currently exist" and were assigned 50 percent mass margins. The CMIS and GPSOS notional designs were categorized as "Design with layout calculations or a major modification of existing hardware: and were assigned 30 percent mass margins. These margins are very much in line with the expected weight growth history. The Aerospace Corporation report documenting the results of its weight growth study states the following: "Weight growth has resulted in significant cost increases due to design changes made to control this growth. Weight growth has also caused reductions in operational capabilities due to the removal of part of the mission equipment to reduce weight. The causes of weight growth are many, but a major contributor is optimism in weight growth estimates during the proposal phase regarding new technologies to be incorporated in the satellite design."

In addition to evaluating the reasonableness of risk, complexity, and margins in the risk assessment, the IPO examined other relevant estimating assumptions prior to establishment of the RFP funding profiles for the critical sensors. The objective was to determine the reasonableness of the SCP Phase I development costs to PDR relative to Phase II non-recurring costs. Further details on the estimating assumptions and clarification of the 43 percent difference between estimated cost and contract award amounts are contained in Attachment 2 to this memorandum.

The IPO, Air Force Cost Analysis Agency (AFCAA), and Office of the Secretary of Defense (OSD) CAIG concentrated most of their efforts on estimating the high cost items, e.g., critical sensors, algorithm development, etc., during development of the SCP. However, the lower cost items were the near term, high-visibility items that included the Phase I costs to PDR. The Phase I costs to PDR are some of the most difficult elements to estimate, because there is no standard estimating methodology, i.e., well-defined cost estimating relationship, factor, etc., to use. One methodology is to apply a factor to the total non-recurring costs. However, the methodology chosen by the IPO to estimate these costs was to take that portion of the phased total non-recurring costs up to the scheduled PDR date as the SCP Phase I costs to PDR for each critical sensor. When examined for reasonableness and consistency with Phase II costs prior to development of the RFP funding profiles, the SCP Phase I estimates appeared too high. Therefore, the IPO made a conscious decision to lower the Phase I costs for the RFP funding profile. We do not believe that the difficulty experienced by the IPO in estimating the Phase I costs is related directly to, or inherent in, the Phase II cost estimates.

Recommendation 2: Change any incorrect assumptions about risk, complexity, and margin used in the CARD, and revise the *Independent Cost Estimate*, *Program Office Estimate*, and *Service Cost Position* life-cycle cost estimate to reflect a reduced contingency profile that, at a minimum, is consistent with DOD's acquisition program baseline cost threshold and objective differential of 10 percent, for the critical sensors and algorithms.

Response: NOAA does not accept this recommendation. The following information is provided to clarify and document the IPO position with respect to the CARD assumptions about risk, complexity, and margin and the life-cycle cost estimates for the critical sensors.

We do not believe that a change to the CARD assumptions about risk, complexity, and margin used to estimate costs for the critical sensors and/or a revision, i.e., reduced budgetary profile, of the life-cycle cost estimates for the critical sensors is warranted at this time. The IPO continuously reviews each area to ensure that the assumptions and estimates properly reflect the most current and relevant information on the program being executed. The risk, complexity, and margins for the critical sensors as they relate to the CARD assumptions are being continually examined and evaluated during the Phase I contracts. At contract award, contractors were required to identify the major risks associated with their critical sensor designs and develop a plan for mitigating those risks. At all major program reviews, e.g., Systems Requirements Review (SRR), System Functional Review (SFR), etc., contractors are required to provide an updated status on risks and their mitigation plans, as well as mass, power, and data rate requirements for their sensor designs compared to the requirements specified in the System Requirement Document (SRD). The mass, power, and data rate information as it relates to the CARD margins is tracked internally by the IPO. Based on data provided to date by the Phase I contractors, an adjustment of the CARD risk assumptions and/or margins does not seem warranted for any of the critical sensors at this time. Currently, the masses for both Phase I CrIS designs equal the CARD mass with margin. Both Phase I OMPS designs use 70 percent of the available CARD mass margin, and the CMIS design for one Phase I contractor currently exceeds the CARD mass with margin. The risk, complexity, and margins for the critical sensors will continue to be a major topic for review and evaluation during execution of the Phase I contracts.

The risk reduction contractors are submitting life-cycle cost estimates for their current sensor designs. The IPO performs a detailed analysis and review of the assumptions and methodologies used by each contractor to develop their

estimates. At major program reviews, e.g., SRR, SFR, etc., the contractor briefs their updated life-cycle cost estimates and the IPO provides feedback on their review of the contractor's assumptions and methodologies. The objective is to have mutual agreement and understanding of the basis for each estimate. In addition, two CAIV targets were provided to contractors: (1) a then-year funding profile that includes completion of the protoflight and first flight units, and (2) an average unit cost in fiscal year 1997 dollars for the remaining number of required flight units. The preliminary life-cycle cost estimates for five of the nine risk reduction contractors exceed the IPO CAIV targets and, in some cases, exceed the total funding included for the instrument in the current program life-cycle cost baseline. We believe that these results indicate that revisions to the critical sensor life-cycle cost estimates are not presently warranted. Contractors are, and will continue to be, required to provide an updated life-cycle cost estimate at major program reviews and technical interchange meetings to include a comparison with the IPO provided CAIV targets. It is important to note that the two most complex and expensive sensors, VIIRS and CMIS, are still very early in Phase I and have not yet had a System Requirements Review (SRR). For example, the C/SSR data submitted by the CMIS contractors in July 1998 shows that both contractors have spent only 12 percent of the budgeted costs in their performance measurement baselines. As contractor designs and life-cycle costs become better defined through the CAIV process, the IPO will evaluate revising the life-cycle costs for critical sensors based on a thorough understanding of each sensor's risk, complexity, and margins.

The DOD acquisition program baseline cost threshold and objective differential of 10 percent in the IG recommendation refers to the guidance in Part 2 (Program Definition) and Part 3 (Program Structure) of DOD 5000.2-R. This directive requires every acquisition program to establish program goals that shall be identified as objectives and thresholds. Paragraph 3.2.1 of DOD 5000.2-R, Objectives and Thresholds, states in part that cost, schedule and performance objectives are developed through the cost as an independent variable (CAIV) process. The directive further states, if threshold values are not otherwise specified, the threshold value for cost shall be the objective value plus 10 percent. In the NPOESS DAES,

the IPO has identified a cost threshold that is 10 percent greater than the cost objective (approved budget). The IPO has provided the contractors with CAIV targets that are less than the approved budget. Therefore, we believe that the IPO's actions are consistent with the DOD 5000.2-R guidance on both CAIV and the establishment of cost thresholds and objectives. DOD 5000.2-R defines threshold as the minimum acceptable value that, in the user's judgment, is necessary to satisfy the need. The IPO believes that the approved budget profile for the critical sensors is the minimum required to execute the program as currently defined.

**Recommendation 3:** Reevaluate risk and complexity assumptions used for the remaining work breakdown structure elements and make any needed changes to the assumptions and related life-cycle cost estimates.

**Response:** NOAA accepts this recommendation. The IPO will initiate a detailed reevaluation of assumptions for all WBS elements in support of the Milestone II decision, that is currently scheduled for March 2001, at least 15 months prior to the decision date. However, the comprehensive risk assessment performed by the IPO during establishment of the SCP addressed the risk and complexity assumptions for all NPOESS WBS elements. As stated in the responses to Recommendations 1 and 2, we believe that our assumptions on risk and complexity are reasonable. Risk and complexity for all program elements are a management concern and will be closely monitored during execution of the risk reduction contracts.

**Recommendation 4:** Examine the reporting process of alerting the departments and EXCOM representatives of significant cost differentials between the amount budgeted and actual cost realized (e.g., earned value management system) for work breakdown structure elements.

**Response:** NOAA accepts this recommendation. The process to ensure that the proper officials are well informed about the program is well established and an integral part of IPO program management. The proper representatives within the Department of Commerce, the Department of Defense, and the EXCOM have been kept informed of all significant NPOESS issues including costs since the program's inception. As the IG report states, the EXCOM was briefed in November 1997 on the contract awards. This briefing included the

implications regarding cost savings to the Government and the IPO's intent to restructure some contracts to incorporate a six month slip in schedule. Contractor performance with respect to the budgeted contract award amounts is being monitored by the IPO through analysis of monthly or quarterly contractor C/SSR submissions. The process is already in place for the IPO to alert the departments and EXCOM representatives if significant differences are noted between budgeted contract amounts and contractor actual costs during Phase I.

**Recommendation 5:** We also recommend that the Department's Under Secretary for Oceans and Atmosphere work with the EXCOM and IPO to produce an Acquisition Decision Memorandum to formally endorse a new baseline that updates costs, schedule, and technical performance parameters.

**Response:** The last Acquisition Decision Memorandum was issued at Milestone I of the NPOESS program in May 1997 to formally endorse the program baseline and authorize the IPO to initiate the Phase I risk reduction contracts. Although there have been changes to the acquisition program during the past year, that have been caused primarily by reductions in Congressional appropriations for FY 1998, the IPO does not believe that another Acquisition Decision Memorandum is necessary at this time. Consistent with DOD 5000.2R Part 5, EXCOM approval to continue the acquisition program and an Acquisition Decision Memorandum will be required when Milestone II is reached in March 2001. However, if Congress makes significant reductions to the FY 1999 appropriations for the NPOESS program that may affect critical sensor acquisition, sensor and spacecraft design and development schedules, or risk reduction flight opportunities, the IPO will be required to work with the EXCOM representatives, that include the Under Secretary of Commerce for Oceans and Atmosphere, to replan and potentially rebaseline the NPOESS program. If significant changes must be made to the acquisition program, an Acquisition Decision Memorandum may be warranted.

## ATTACHMENT 2

### IPO'S ESTIMATING ASSUMPTIONS

Recommendation 1: "Examine risk, complexity, margins, and other relevant assumptions used in the CARD for estimating Phase I critical sensor and algorithm funding profiles and report on how and where the 43 percent difference between estimated cost and contract award amounts occurred."

*Details on the estimating assumptions and clarification of the 43 percent difference between estimated cost and contract award amounts.*

Traditionally, hardware development costs to PDR are approximately 17 to 20 percent of the total non-recurring costs for the protoflight unit. There are several sources to support the factor, but one significant source was the costs provided by Hughes Santa Barbara Research Corporation for the Tropical Rain Measuring Mission Visible Infrared Scanner (TRMM/VIS) and Moderate Imaging Spectroradiometer (MODIS) instruments. The hardware development costs to PDR for both instruments were 17 percent of the total non-recurring costs. The IPO reassessed the SCP Phase I hardware development costs to PDR for the critical sensors prior to developing the RFP profiles. The IPO found that costs for some instruments were higher than the traditional 17 percent factor. Consequently, the IPO decided to adjust the hardware development costs to PDR to a level more in line with historical data on satellite development costs and make the Phase I costs consistent with the Phase II costs. The algorithm costs were based on level-of-effort staffing determined by detailed, bottom-up engineering assessments of how environmental data records (EDRs) are generated today, and how they are planned to be generated for NPOESS. The IPO examined the staffing levels and decided that they appeared high, perhaps including some double counting. Therefore, the IPO also adjusted the algorithm development costs to a more reasonable level. The IPO's conscious decision to lower costs for both the hardware development to PDR and algorithm development resulted in a greater consistency between the Phase I and Phase II costs. In its effort to ensure this consistency, the IPO lowered the RFP profiles relative to the SCP Phase I estimates which, in turn, resulted in additional, unplanned contingency that



created the 43 percent difference identified in the IG report. In addition to adjusting the Phase I costs for consistency with the Phase II costs, a major impetus behind the IPO adjustments was a concern that the risk reduction contractors may get an incorrect impression about the type and complexity of the sensor(s) that the IPO intends to buy if the RFP profiles were based on the original SCP estimates. The RFP profiles also did not include fee, but the RFP implied that fee was included and contractors bid accordingly. These factors, in combination with economizing by contractors when bidding on multiple sensors, resulted in contract awards being much lower than budgeted. All contingencies resulting from the difference between SCP estimates and RFP profiles for the critical sensors were returned to the Government as savings.

The 43 percent cost difference is based on the IG comparison of total costs allocated to Phase I (risk reduction) in the SCP versus the total amount of the contracts awarded. The total of the contract award amounts was \$149M versus the SCP estimate of \$264M, or a total difference of \$115M (43 percent). Based on this difference, the IG believes that Phase II costs for the critical sensors are significantly overstated. The following is an explanation on the development of the Phase I costs in the SCP and how they relate to Phase II cost estimates.

There are two major elements that made up the Phase I SCP costs of \$264M: (1) the competitive development to PDR, and (2) algorithm development. The competitive development to PDR comprised \$181M, and the algorithm development comprised \$83M of the \$264M total. The competitive development to PDR costs accounted for \$63M of the \$115M difference, while \$52M applied to the algorithm development. The majority of the algorithm development will be completed at the end of Phase I. Based on the total staff months identified for critical sensor algorithm development in the CARD, 85 percent of the effort was scheduled for completion at the end of Phase I. Therefore, any potential adjustment of Phase II estimates for algorithm development would only apply to 15 percent of the \$83M in the SCP baseline, or about \$12M. The \$12M represents about one percent of the total life-cycle costs for the critical sensors in the current program baseline.

The competitive development to PDR costs were comprised of three elements: contractor test bed, system definition studies, and the sensor design effort to PDR. The SCP total of \$181M for the competitive development to PDR was broken out as follows: \$12M for contractor test bed characterization, \$30M for system definition studies (staffing level of effort to augment design efforts, i.e., a continuation of Phase 0 type efforts to firm requirements), and \$139M for the sensor design effort to PDR. The test bed characterization and system definition studies efforts end at the completion of the risk reduction contracts. Therefore, no adjustment of Phase II costs is required for these elements. Consequently, any adjustment of Phase II costs for possible overstatement would only apply to the percentage difference between the SCP costs and contract award amounts for the sensor design effort to PDR element. The SCP costs allocated to this particular element totaled \$139M versus the risk reduction contracts total of \$110M, or a difference of \$29M (about 26 percent). The SCP total of \$139M includes costs for two GPSOS contractors, but only one contract was awarded. The SCP costs for two GPSOS contractors were \$14M, or \$7M for one contractor. The sensor design effort comprised about \$4M of the \$7M. Subtracting \$4M from the \$139M results in a difference of \$25M (\$135M - \$110M), or about 23 percent, between the SCP and contract awards for the sensor design effort to PDR. Although the 23 percent difference may seem significant, this significance is diminished when the costs for the sensor design effort are considered relative to the total life-cycle costs for the critical sensors and the total NPOESS program life-cycle costs. The costs for the sensor design effort to PDR in the risk reduction contracts represent about 10 percent of the total life-cycle costs for the critical sensors and about one percent of the program total life-cycle costs in the current NPOESS baseline. We do not believe that the Phase II costs for the critical sensors are overstated. However, we believe that an adjustment of life-cycle costs would not be warranted on any program in Phase I of the acquisition process given a 23 percent difference on one percent of a program's total life-cycle costs.

# ATTACHMENT 3

Appendix II: Option E versus Option E'

WBS No.	Description	Option E	Option E'	Difference	Reason for Difference
1	NPOESS Program	6650.6	6609.8	-40.8	
1.1	Launch Segment	323.4	323.4	0.0	
1.1.1	Launch Vehicle	273.1	273.1	0.0	
1.1.2	Segment I&T	50.3	50.3	0.0	
1.2	Space Segment	2627.1	2624.8	-2.3	
1.2.1	Satellite I&T	140.6	140.6	0.0	
1.2.2	Spacecraft Bus	724.7	724.7	0.0	
1.2.3	Payload	1761.8	1759.5	-2.3	
1.2.3.1	VIIRS	386.8	386.8	0.0	
1.2.3.2	CrS	130.3	130.3	0.0	
1.2.3.3	CrMTS	120.3	121.2	0.9	Slip C1 schedule 12 months to meet near term fiscal year budget constraints.
1.2.3.4	OMPS	127.0	127.0	0.0	
1.2.3.5	GPSOS	37.2	37.2	0.0	
1.2.3.6	SES	167.3	167.5	0.2	Rounding.
1.2.3.7	ERBS	64.3	65.3	1.0	Slip C1 schedule 12 months to meet near term fiscal year budget constraints.
1.2.3.8	TSIS	88.9	90.0	1.1	Slip C1 schedule 12 months to meet near term fiscal year budget constraints.
1.2.3.9	Altimeter	132.6	134.5	1.9	Slip C1 schedule 12 months to meet near term fiscal year budget constraints.
1.2.3.10	Survivability Sensor	24.2	24.2	0.0	
1.2.3.11	CMIS	482.9	475.5	-7.4	Reduce management reserve to meet near term fiscal year budget constraints.
1.3	C3	110.9	112.8	1.9	
1.3.1	Segment I&T	19.0	19.1	0.1	Rounding.
1.3.2	Command & Control	68.8	70.6	1.8	Slip schedule 24 months to meet near term fiscal year budget constraints.
1.3.3	Data Routing & Retrieval				
1.3.4	Flight Veh Simulator	23.1	23.1	0.0	
1.4	IDPS	263.5	263.1	-0.4	
1.4.1	Segment I&T	17.5	17.5	0.0	
1.4.2	EDR Algorithms	31.0	31.0	0.0	
1.4.3	Centrals	127.8	127.4	-0.4	
1.4.4	Regionals	87.2	87.2	0.0	
1.5	SEPM	926.7	924.1	-2.6	
1.5.1	System Integrator	398.0	395.3	-2.7	Minor rephasing to meet near term fiscal year budget constraints.
1.5.2	System Level SE/PM	325.5	325.0	-0.5	Minor rephasing to meet near term fiscal year budget constraints.
1.5.3	Space Veh SE/PM	95.3	95.2	-0.1	Minor rephasing to meet near term fiscal year budget constraints.
1.5.4	C3 SEPM	42.9	43.7	0.8	
1.5.5	IDPS SEPM	65.0	64.9	-0.1	Rounding.
1.6	Test & Evaluation	120.3	120.3	0.0	
1.6.1	Developmental T&E	62.5	62.5	0.0	
1.6.2	Operational T&E	49.4	49.4	0.0	
1.6.3	Mockups				
1.6.4	Test Facilities				
1.6.5	T&E Support				
1.6.6	Risk Allocation	8.4	8.4	0.0	
1.7	Systems Training	35.6	34.6	-1.0	
1.7.1	Space Segment	20.8	20.8	0.0	
1.7.2	C3 Segment	3.5	2.5	-1.0	Minor reduction to meet near term fiscal year budget constraints.
1.7.3	IDPS	12.5	12.5	0.0	
1.7.4	Risk Allocation	-1.2	-1.2	0.0	
1.8	PSE	35.1	35.0	-0.1	Rounding.
1.9	CSE				
1.10	Flight Support Ops	69.2	69.2	0.0	
1.11	Storage	6.2	6.2	0.0	
1.13	Initial Spares	4.9	4.9	0.0	
1.14	O&S	1474.3	1474.3	0.0	
1.15	Gov't Program Office	399.9	397.5	-2.4	
1.15.1	Internal Studies	79.8	77.4	-2.4	Reduction to meet budget constraints.
1.15.2	Infrastructure	320.1	320.1	0.0	
1.16	Modifications	251.2	217.3	-33.9	
1.16.1	POES Mods	94.5	83.6	-10.9	Reduction to meet near term fiscal year budget constraints.
1.16.2	DMSP Mods	156.7	133.7	-23.0	Reduction to meet near term fiscal year budget constraints.
Other	IFACS/Fairbanks	2.3	2.1	0.0	Modifications to Fairbanks antennas. Not considered part of SCP when developed.

# ATTACHMENT 3

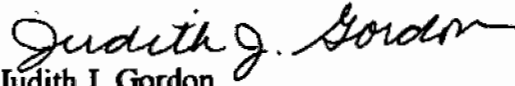
Appendix II: SCP versus Option E

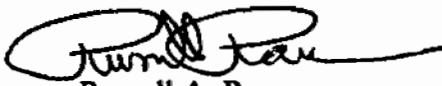
WBS No.	Description	SCP	Option E	Difference	Reason for Difference
1	NPOESS Program	6741.8	6660.8	-81.3	
1.1	Launch Segment	319.8	323.4	3.6	
1.1.1	Launch Vehicle	269.9	273.1	3.2	C3-C5 funded from 2020 versus 2000. Different inflation index.
1.1.2	Segment I&T	48.9	50.3	0.4	C3-C4 funded from 2020 versus 2000. Different inflation index.
1.2	Space Segment	2816.0	2827.1	11.1	
1.2.1	Satellite I&T	143.7	140.0	-3.7	Slip C1 schedule six months. Fully fund C3-C5. Fund C3-C5 from 2020 vs 2000.
1.2.2	Spacecraft Bus	721.3	724.7	3.4	Slip C1 schedule six months. Fully fund C3-C5. Fund C3-C5 from 2020 vs 2000.
1.2.3	Payload	1751.0	1761.8	10.8	
1.2.3.1	VIIRS	388.6	388.6	-1.6	Insert contract value (includes algorithms) for Phase I. Fully fund units 3-7 from 2020.
1.2.3.2	CdS	123.0	130.3	7.3	Insert contract value (includes algorithms) vs SCP for Phase I. Fully fund unit 4 from 2020. Slip C1-C2 schedule six months.
1.2.3.3	CrMIS	120.4	120.3	-0.1	Slip C1-C2 schedule six months. Fully fund units 3-5 from 2020 vs 2000.
1.2.3.4	OMPS	126.7	127.0	-1.7	Insert contract value (includes algorithms) for Phase I. Fully fund unit 4 from 2020. Slip C2-C3 schedule six months.
1.2.3.5	QPSOS	38.4	37.2	-1.2	Insert contract value (includes algorithms) for Phase I. Fully fund units 7-11 from 2020. Slip C1 schedule six months.
1.2.3.6	SES	159.2	167.3	8.1	Slip C1-C2 schedule six months. Fully fund units 3-7. Fund C3-C7 from 2020 vs 2000.
1.2.3.7	ERBS	63.2	64.3	1.1	Slip C1-C2 schedule six months. Fully fund unit 3 from 2020.
1.2.3.8	TSIS	87.9	88.9	1	Slip C1-C2 schedule six months. Fully fund unit 3 from 2020.
1.2.3.9	Atmos	128.1	132.6	4.5	Slip C1-C2 schedule six months. Fully fund units 3-5 from 2020.
1.2.3.10	Survivability Sensor	23.8	24.2	0.4	Slip C1-C2 schedule six months. Fully fund units 3-5 from 2020 vs 2000.
1.2.3.11	CMIS	489.7	482.9	-6.8	Insert contract value (includes algorithms) for Phase I. Fully fund units 3-7 from 2020. Slip C1-C2 schedule six months.
1.3	C3	110.3	110.9	0.6	
1.3.1	Segment I&T	18.8	19.0	0.2	Slip FY05-FY06 schedule six months.
1.3.2	Command & Control	68.6	68.8	0.3	Slip FY05-FY06 schedule six months.
1.3.3	Data Routing & Retrieval				Slip FY05-FY06 schedule six months.
1.3.4	Flight Veh Simulator	23.0	23.1	0.1	Slip FY05-FY06 schedule six months.
1.4	IDPS	387.8	283.6	-104.4	
1.4.1	Segment I&T	17.5	17.5	0.0	
1.4.2	EDR Algorithms	130.2	31.0	-105.2	Shift algorithm costs for critical sensors to space segment. Used contract values in space segment.
1.4.3	Centrals	127.2	127.8	0.6	Shifted some effort from FY01 to FY05-FY06
1.4.4	Regionals	87.0	87.2	0.2	Shifted some effort from FY02 to FY05-FY07
1.5	SEPM	332.8	328.7	-4.1	
1.5.1	System Integrator	405.6	398.0	-7.6	Reduced Pre-TSPR effort. Payload TSPR costs shifted to earlier years as result of full funding.
1.5.2	System Level SEPM	324.9	326.5	0.6	Result of six month schedule slip. More outyear inflation.
1.5.3	Space Veh SEPM	94.2	95.3	1.1	Result of six month schedule slip. More outyear inflation.
1.5.4	C3 SEPM	42.9	42.9	0.0	
1.5.5	IDPS SEPM	65.0	65.0	0.0	
1.6	Test & Evaluation	119.3	120.3	1.0	
1.6.1	Developmental T&E	82.4	82.5	0.1	Rounding
1.6.2	Operational T&E	49.5	49.4	-0.1	Minor rephrasing
1.6.3	Mockups				
1.6.4	Test Facilities				
1.6.5	T&E Support				
1.6.6	Risk Allocation	8.4	8.4	0.0	
1.7	Systems Training	35.8	35.8	0.0	
1.7.1	Space Segment	20.8	20.8	0.0	
1.7.2	C3 Segment	3.6	3.6	0.0	
1.7.3	IDPS	12.5	12.5	0.0	
1.7.4	Risk Allocation	-1.2	-1.2	0.0	
1.8	PSE	36.1	36.1	0.0	
1.9	CSE				
1.10	Flight Support Ops	68.8	69.2	0.4	Fund launches 1-4 from 2020 vs 2000. Different inflation index.
1.11	Storage	6.2	6.2	0.0	
1.12	Initial Spares	4.9	4.9	0.0	
1.14	O&S	1474.3	1474.3	0.0	
1.16	Gov't Program Office	399.9	399.9	0.0	
1.15.1	Internal Studies	79.8	79.8	0.0	
1.15.2	Infrastructure	320.1	320.1	0.0	
1.18	Modifications	261.2	261.2	0.0	
1.15.1	POES Mods	94.5	94.5	0.0	
1.15.2	DMSP Mods	166.7	166.7	0.0	
Other	IPACS/Fairbanks	0.0	2.3	2.3	Modifications to Fairbanks antennas. Not considered part of SCP when developed.

MAR 26 1999



MEMORANDUM FOR: Robert S. Winokur  
Acting System Program Director  
NPOESS Integrated Program Office

FROM:   
Judith J. Gordon  
Assistant Inspector General for Systems Evaluation  
Office of Inspector General  
Department of Commerce

  
Russell A. Rau  
Assistant Inspector General for Auditing  
Office of Inspector General  
National Aeronautics and Space Administration

SUBJECT: Inspection Report, *Proposed NPOESS Preparatory Project  
Reduces Operational Risk, But Excludes Demonstration of Critical  
Ozone Suite* (DOC OSE-11103/NASA IG-99-012)

The Offices of Inspector General of the Department of Commerce and National Aeronautics and Space Administration (NASA) conducted a joint inspection of the risks and costs associated with technology transfer to the National Polar-orbiting Operational Environmental Satellite System (NPOESS). This inspection report identifies a risk reduction issue concerning a proposed joint NPOESS Integrated Program Office (IPO)/NASA NPOESS Preparatory Project (NPP) mission that warrants your immediate attention.

We found that preliminary planning assumptions for the proposed NPP do not include evaluating the feasibility of demonstrating the Ozone Mapper Profiler Suite (OMPS), one of IPO's critical sensors. Exclusion of OMPS from flight demonstration will significantly increase the risk of a disruption in vital ozone data continuity. We recommend that IPO (1) request NASA to include OMPS as a payload alternative in its NPP feasibility study, (2) defer the decision to include or exclude OMPS for flight demonstration until mission costs are fully analyzed and a cost sharing arrangement is negotiated, and (3) assess the operational risk of not demonstrating OMPS.

Your response indicates general concurrence with the recommendations and that implementing actions have been taken or planned. We have included on page 7 a synopsis of your general comments on the report findings, and a synopsis of your response to each recommendation followed by an OIG discussion. Your response in its entirety is included as Appendix A.

We appreciate the cooperation of IPO and agency staff during this inspection.

## **BACKGROUND**

The Department of Commerce, Department of Defense, and NASA are developing NPOESS in accordance with a 1994 Presidential Decision Directive. The Directive calls for NPOESS to combine the separate DOD Defense Meteorological Satellite Program (DMSP) and the Commerce/NASA-supported, Polar-orbiting Operational Environmental Satellite (POES) programs into a single, jointly operated satellite system. An Executive Committee (EXCOM), consisting of the Under Secretary of Commerce for Oceans and Atmosphere, Under Secretary of Defense for Acquisition and Technology, and NASA Deputy Administrator is responsible for policy guidance. Program implementation is the responsibility of IPO, under the direction of a Commerce system program director.

The acquisition strategy developed in 1996 includes early development of five critical sensors, which are characterized by significant technological challenge: (1) Visible/Infrared Imager Radiometer Suite (VIIRS), (2) Conical Microwave Imager Suite (CMIS), (3) Cross-track Infrared Sounder (CrIS), (4) Ozone Mapper Profiler Suite (OMPS), and (5) Global Positioning System Occultation Sensor (GPSOS).

Until 1998, critical sensor risk reduction activities included a flight demonstration of CrIS, OMPS, and GPSOS by adding these sensors to POES-N Prime, NOAA's last polar-orbiting operational satellite before convergence with NPOESS. However, an increase in the estimated cost, IPO budget cuts, and concern about NASA's Earth Observing System (EOS) mission continuity prompted IPO and NASA to develop an alternative mission. The alternative—NPP—would combine demonstration of NPOESS critical sensors with a developmental payload in support of NASA's Earth Science Program/EOS. NASA formally initiated an NPP feasibility study in September 1998 and is preparing a mission development plan. The plan will be completed in March 1999, and will define technical content, agency roles, budget, and cost sharing. EXCOM endorsed the NPP feasibility study at its December 18, 1998, meeting and is scheduled to consider the study results when it meets in April 1999.

## **PURPOSE AND SCOPE OF INSPECTION**

The purpose of our review was to assess the level of sensor technology being transferred from NASA and other sources to NPOESS to minimize risk and cost. Although we are continuing our work in this area, this report is being submitted at this point because of the immediate need for IPO to deal with our observations and recommendations. The observations and recommendations contained in this report focus specifically on the risk and cost effects that changes in the methodology for demonstrating selected critical sensors may have on the mission success of NPOESS technology.

The scope of our work included evaluating the technology transfer roles and responsibilities of IPO and NASA, IPO planning and coordination with NASA, and management controls. We interviewed IPO technology transition and critical sensor engineers and project managers and representatives from NASA's Earth Science Program with responsibility for EOS satellites. We also interviewed NASA and Commerce research and operations scientists.

Our work was performed in accordance with the Inspector General Act of 1978, as amended, and the *Quality Standards for Inspections*, March 1993, issued by the President's Council on Integrity and Efficiency.

## **OBSERVATIONS AND CONCLUSIONS**

### **Proposed NPP Reduces Operational Risk, But Excludes Critical Ozone Suite**

We endorse the concept of converging NPOESS risk reduction demonstrations with a NASA mission. Under the proposed NPP, the flight demonstration of NPOESS critical sensors would no longer be tied to the POES-N Prime satellite, lowering the risk of operational failure due to the satellite modifications that would be required to add NPOESS sensors. However, one of IPO's critical sensors planned for demonstration on POES-N Prime, OMPS, is excluded in the preliminary NPP flight planning assumptions due to actual and anticipated budget cuts. Without flight demonstration of OMPS, the risk is significantly increased that sufficient ozone data may not be available to support federal government decision-making on actions to reduce ozone depletion.

#### *High Risk Ozone Sensor Suite Not Considered for Feasibility/Cost Study*

The NPP mission initial planning assumptions outlined in NASA's Associate Administrator for Earth Science memorandum of September 17, 1998, do not include OMPS. NASA's subsequent Mission Concept and Development Plan for its study of the NPP mission feasibility and system concept does not include OMPS as a primary alternative, but rather a possible consideration along with a NASA research sensor, meaning that its life-cycle costs will not be analyzed. OMPS should be included as a primary alternative due to its development risk and the potential for a gap in high quality ozone data.

OMPS was chosen for flight demonstration on POES-N Prime to mitigate its potential high development risk and to provide users with better ozone data prior to the first NPOESS. OMPS is a high risk sensor because it combines functions previously performed by two sensors and significantly advances the technology. It will perform the functions of both Commerce's Solar Backscatter Ultraviolet Spectral Radiometer (SBUV), flown on POES satellites, and NASA's Total Ozone Mapper Sensor (TOMS), flown on the Earth Probe satellite. OMPS will also

advance the SBUV and TOMS 1970s technology and obtain significantly better data to increase the usefulness of ozone monitoring products.

According to IPO's Cost Analysis Requirements Description (which establishes size, weight and power margins [risk factors] for the five critical sensors), VIIRS, CrIS, and OMPS carry the highest degree of development uncertainty. A flight demonstration would provide for early evaluation of sensor and algorithm capabilities and corrective modifications if needed before the first NPOESS launch. VIIRS and CrIS are proposed for demonstration on the NPP mission based on the inherent risks of flying new, complex technology for the first time.

Flight demonstration of OMPS was justified in the IPO budget beginning in fiscal year 1998. The justification cited the need for new technology to meet ozone data user requirements. According to IPO's Single Acquisition Management Plan, OMPS is critical in determining high resolution ozone profiles and related trace gases, which are vital to monitoring changes in the composition of the atmosphere and deducing the effects of these changes on the global climate. According to Commerce and NASA ozone scientists, to be highly effective, ozone instruments must accurately measure a vertical profile and be able to map a horizontal column within the stratosphere and troposphere. Current ozone sensors do not provide the high resolution data sets that are needed in profiling and mapping to examine small scale ozone phenomenon and improve data models and products. Demonstration of OMPS prior to the first NPOESS would provide a phased introduction of NPOESS-like capabilities to meet the users' highest priority needs while mitigating NPOESS development risk.

*Commerce and NASA Are Required to Monitor and Report on the  
Extent and Effect of Ozone Depletion*

Eliminating flight demonstration of OMPS may jeopardize the ability of the federal government to meet public safety and international agreement responsibilities. Commerce and NASA are mandated to monitor ozone levels, conduct research, and report on the levels of ozone depletion. Under the Clean Air Act of 1990, Public Law 101-549, Commerce's National Oceanic and Atmospheric Administration and NASA are responsible for monitoring and reporting on the condition of the earth's ozone because of the adverse effects that have been linked to ozone depletion. Health hazards that have been associated with ozone depletion include skin cancers, suppression of the immune system, gene mutations, eye disorders including cataracts, as well as adverse effects on crops, animals and marine life.

Under the National Aeronautics and Space Administration Authorization Act, Public Law 94-39, NASA is responsible for conducting scientific research of the upper atmosphere, including assessing long-term environmental change. Both Commerce and NASA are required to report to Congress on the status of ozone depletion. Congress and the President need reliable information



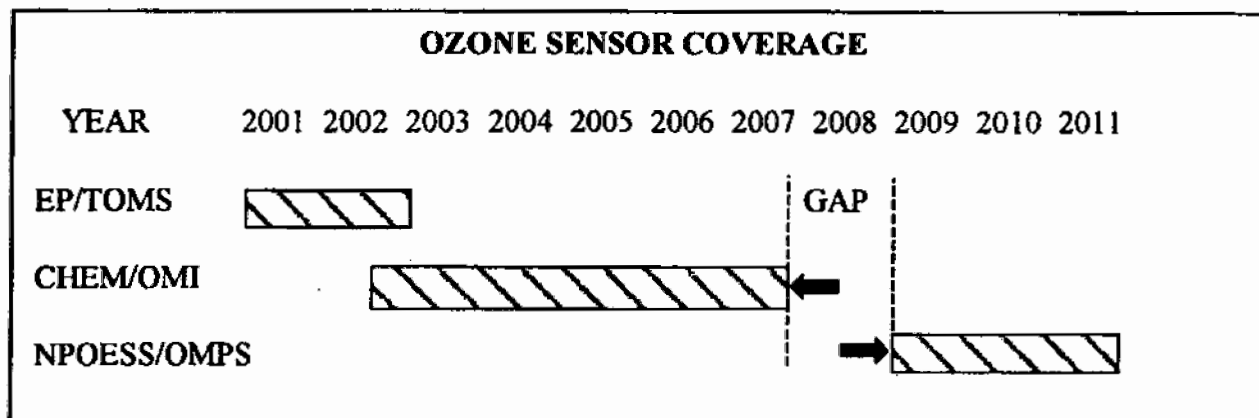
on ozone status, changes, and causes to make policy decisions on actions to reduce ozone depletion. Ozone information is also needed to ensure compliance with the Montreal Protocol, an international agreement to eliminate ozone-depleting substances. Should OMPS high quality ozone data not be available, Commerce and NASA may not be able to effectively support federal government policy decision-making.

*Eliminating OMPS Demonstration Testing Will Significantly Increase Risk  
of a Disruption in Vital Ozone Data Continuity*

Excluding a flight demonstration of OMPS increases the risk of a disruption in high quality ozone data in two ways. First, the risk is increased by the possibility of an OMPS failure on the first NPOESS. OMPS was planned for flight demonstration on POES-N Prime in 2008, with nearly a four-year satellite life expectancy. If OMPS were demonstrated on NPP instead, it would launch in mid-2005 with a five-year life. Without demonstration on either platform, the first flight will be on NPOESS in early 2009. If OMPS fails on NPOESS, the satellite will not be replaced. According to IPO, an on-orbit satellite will be replaced only if specific weather data gathering sensors—not including OMPS—fail. Since the next NPOESS is not scheduled to launch until 2011, an early OMPS failure on the first NPOESS would result in Commerce and NASA not having critical ozone data for two years.

Second, the risk is increased due to the expected termination of NASA missions and the potential for a delay in launching the first NPOESS. The TOMS mission is expected to end in 2003. NASA's Ozone Mapping Instrument (OMI) is scheduled to launch on NASA's EOS CHEM-1 satellite in 2002. This sensor is to provide high quality ozone data to NASA and Commerce and to continue NASA's ozone data gathering until OMPS is available. However, the OMI design life is five years, resulting in expected mission termination in 2007. This may result in a gap in coverage for more than a year until the first NPOESS is operational in 2009. The gap could be larger if the first NPOESS launch date slips. The first launch has already been delayed from 2004 to 2009, primarily due to DMSP and POES satellites lasting longer than expected, and could be further delayed (see Table 1 on page 6).

**Table 1. Potential Gap in Ozone Coverage**



*Uncertainties Require Further Alternatives and Cost Analysis*

According to IPO, POES-N Prime sensor demonstrations will not be performed because its budget will no longer support the required satellite modifications. IPO decided also that its budget will not support flight of OMPS at the time of the NPP mission. IPO based its budget for the demonstration of CrIS, OMPS, and GPSOS aboard POES-N Prime on a one-month limited scope accommodation study it tasked NASA to perform in 1996; however, design assumptions about CrIS significantly changed since the study was completed. A detailed, 10-month NASA study using more current information was completed August 17, 1998. The second study showed that the flight demonstration would cost \$148 million, more than double the \$65 million 1996 estimate used for NPOESS budgeting.

IPO and NASA formally discussed an alternative flight demonstration—NPP—on August 27, 1998. However, OMPS was excluded based on IPO priorities and resource assumptions. OMPS was considered less important to Commerce than sensors that support weather forecasting, and the NPOESS faced a Congressional \$14.7 million Commerce fiscal year 1999 budget cut and another \$15.5 million OMB fiscal year 2000 cut. According to IPO, these budget cuts force a slowdown in OMPS delivery from mid-2002 to early 2005—too late for inclusion on the NPP mission. The IPO estimated that it would cost about \$14 million to maintain the 2002 delivery date to support inclusion in NPP.

The IPO decision that it lacked sufficient funding to fly OMPS may be premature. Because Congress reduced the Commerce fiscal year 1999 appropriation, it appeared likely that the Defense appropriation would also be reduced due to its joint funding arrangement with Commerce. However, IPO learned in December 1998 that it may receive \$14.7 million

unanticipated funding from Defense. The \$14.7 million would be enough to resume the 2002 OMPS delivery schedule.

The decision to exclude OMPS is also premature because it was made before IPO knew its cost share of the mission. IPO could not provide support for the cost projections used in its decision to exclude OMPS from the NPP mission. NASA's Associate Administrator for Earth Science directed full life-cycle cost analysis of alternatives to be included in the NPP Mission Concept and Development Plan study, including cost sharing. Only if OMPS is included in the study will the complete budget implications of including OMPS be known, allowing an informed decision to be made. Considering the high risk that quality ozone data may not be available to meet national needs without a flight demonstration, OMPS should be given further consideration.

#### *IPO General Comments on Findings and OIG Discussion*

IPO expressed concern about language in the report suggesting that the NPOESS program should be responsible for ensuring continuity of global ozone mapping data, and commented that it is currently a NASA responsibility. We found that Public Law 101-549 makes Commerce and NASA equally responsible for monitoring and reporting on the condition of the earth's ozone.

We reported that IPO was receiving \$14.7 million unanticipated funding from Defense and that this amount would be enough to resume the 2002 OMPS delivery schedule. IPO responded that the statement was not accurate because the \$14.7 million was originally anticipated as a critical part of full funding for NPOESS in fiscal year 1999 (and thus, not unanticipated), and was already earmarked for other activities. The issue is not the meaning of "unanticipated funding," but whether IPO should use the \$14.7 million from Defense for OMPS or the other activities. IPO should decide how best to use its resources for the NPOESS mission. The intent of this report is to encourage IPO to fully analyze risks and costs as a means of establishing priorities.

## **RECOMMENDATIONS**

We recommend that the Acting System Program Director:

1. Request NASA to include OMPS as a payload alternative in the NPOESS Preparatory Project Mission Concept and Development Plan study.

#### *Synopsis of IPO's Response*

IPO accepts this recommendation. The Assistant Administrator for Satellite and Information Services (also the IPO Acting System Program Director) and the NASA Associate Administrator for Earth Science, have directed the joint IPO/NASA NPP

planning team to include OMPS as a fourth payload alternative in the NPP mission concept and development plan study. NASA recently released a Request for Information (RFI) to solicit proposals from industry to implement a spacecraft for the proposed NPP mission. The RFI includes mass, power, and data rate specifications for a fourth, instrument-of-opportunity payload on NPP. The planning team will conduct a complete assessment to determine if a fourth payload, such as OMPS, can be accommodated on NPP within agency cost constraints.

#### *OIG Discussion*

IPO's actions are responsive to the recommendation.

2. Defer the decision to include or exclude OMPS for the NPP flight demonstration until mission costs are fully analyzed and a cost sharing arrangement is negotiated.

#### *Synopsis of IPO's Response*

IPO accepts this recommendation. A decision on whether a fourth payload can be accommodated on NPP at an affordable program cost, and if so, the selected payload, will be deferred until NPP mission costs are fully analyzed, IPO and NASA program priorities for NPP are approved by EXCOM and NASA Headquarters respectively, and an equitable cost sharing arrangement between IPO and NASA has been negotiated. IPO expects to brief EXCOM on the NPP study status in the spring of 1999.

Adding a fourth sensor, such as OMPS, to NPP will increase the mass, power, attitude control, command and control, and data transmission requirements placed on the proposed spacecraft. The potential risk is that the NPP mission may not be affordable even with joint IPO/NASA funding if the spacecraft must be sized and configured to carry four payloads. If a decision is made to carry OMPS as a fourth payload on NPP, then additional funding in the FY 2001 – FY 2004 NOAA budget for NPOESS will be required to accelerate the OMPS instrument fabrication schedule to meet an earlier delivery date for NPP spacecraft integration.

#### *OIG Discussion*

IPO's actions are responsive to the recommendation. However, it is too early to determine whether additional funding will be needed. When the NPP concept and development plan is completed, IPO will be in a better position to prioritize an OMPS demonstration in relation to other NPOESS mission activities based on mission risks and costs and a cost sharing arrangement with NASA.

3. Assess the operational risk of not demonstrating OMPS.

*Synopsis of IPO's Response*

IPO accepts this recommendation. Based on a preliminary assessment of information and documentation received from contractors, IPO believes that instrument designs are mature enough to be able to accept the potential risk of not conducting a space-based test of the specific OMPS instrument prior to the first operational NPOESS launch, if OMPS cannot be accommodated on the NPP mission.

The global ozone mapping component of OMPS will be derived from the TOMS instrument, a proven space-based, remote sensing technology, as well as the improved technologies that will be demonstrated by NASA's OMI on the CHEM-1 mission beginning in 2002. The OMPS will also include a limb sensor to improve the vertical resolution in atmospheric ozone profile measurements, rather than a nadir-pointing sensor as used on the POES SBUV. Although this specific sensor has not yet flown operationally, research ozone limb sensors will be demonstrated by NASA over the next several years. These missions will provide valuable risk reduction information to IPO and its contractors.

To ensure that a gap in global ozone mapping does not occur, IPO believes that NASA, NOAA and their international partners should periodically assess the status of space-based ozone measurements and determine methods to maintain a long-term ozone data record. IPO will provide a more complete assessment of the potential operational risks of not demonstrating OMPS to the OIGs in May 1999, after it has completed source selection and awarded a single contract for development and fabrication of OMPS.

*OIG Discussion*

IPO's actions are responsive to the recommendation.

IPO's full response is included as Appendix A.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

MAR 16 1999

MEMORANDUM FOR: Johnnie Frazier  
Acting Inspector General

FROM: Paul F. Roberts *Paul F. Roberts*

SUBJECT: OIG Draft Inspection Report: Proposed NPOESS  
Preparatory Project Reduces Operational Risk,  
But Excludes Demonstration of Critical Ozone  
Suite (DOC OSE-1103/NASA P&A-98-008)

Thank you for the opportunity to review and comment on the draft inspection report on risk reduction efforts for technology associated with the National Polar-orbiting Operational Environmental Satellite System (NPOESS). The NPOESS Preparatory Project (NPP), a joint project of the Integrated Program Office (IPO) of the National Environmental Satellite, Data, and Information Service and the National Aeronautics and Space Administration (NASA), is a major part of those efforts.

In general, we agree with the findings in the draft report regarding the proposed risk reduction, early flight of opportunity demonstration program that the IPO and NASA's Office of Earth Science (OES) is jointly pursuing. NOAA is particularly pleased that the Office of Inspector General (OIG) has endorsed and independently validated the concept of the NPP mission. We believe that this joint mission will provide an early flight of opportunity demonstration to reduce risk to the critical NPOESS sensors that will be flown operationally beginning in late 2008, as well as allow NASA to ensure continuity of selected earth science data sets between the anticipated end of NASA's Earth Observing System (EOS) AM and PM missions in 2005-2006 and the start of the NPOESS mission in 2008.

We agree with the recommendations made in the report concerning the Ozone Mapping and Profiler Suite (OMPS) and we have already taken action on the recommendations to include the OMPS as a payload alternative in the NPP feasibility study and to defer the decision to include or exclude OMPS on NPP until



the mission costs are analyzed completely and a cost sharing agreement between the IPO and NASA has been negotiated. In addition, we are in agreement with the OIG about ensuring continuity of global ozone mapping data during the transition (2007-2008) from the NASA ozone mapping research missions to the operational NPOESS mission. Those issues are addressed in our general comments on findings.

We have made a preliminary evaluation of the potential operational risks of not demonstrating OMPS prior to the first NPOESS launch, but will defer a more complete assessment until May 1999, after the IPO has completed source selection and has awarded a single contract for development and fabrication of the OMPS.

Again, NOAA appreciates the opportunity to and comment on the draft inspection report. Our specific response to each finding and recommendation is attached.

Attachment

**Comments on Findings and Responses to Recommendations:  
OIG Draft Inspection Report  
"Proposed NPOESS Preparatory Project Reduces Operational  
Risk, But Excludes Demonstration of Critical Ozone Suite"**

**Section I: General Comments on Findings**

We are pleased that the OIG has endorsed and independently validated the concept of converging NPOESS risk reduction, early flight demonstrations with a NASA mission. We believe that this joint mission will provide an important opportunity to reduce risk to the critical NPOESS sensors that will be flown operationally beginning in late 2008, as well as allow NASA to ensure continuity of selected earth science data sets between the anticipated end of NASA's Earth Observing System (EOS) AM and PM missions in 2005-2007 and the start of the NPOESS mission in 2008.

The OIG review of the proposed NPP mission identified that the Ozone Mapping and Profiler Suite (OMPS) that is planned for NPOESS was not specifically included as a payload alternative in the initial planning assumptions for the NPP mission. As a result, the OIG concluded that, "Exclusion of OMPS from flight demonstration will significantly increase the risk of a disruption in vital ozone data continuity." Although we understand the OIG's interest in ensuring continuity of global ozone mapping data to support federal government policy decision-making, we are concerned about the suggestion that the OIG has made that the NPOESS program should be responsible for ensuring continuity of global ozone mapping data during the transition (2007-2008) from the NASA ozone mapping research missions to the operational NPOESS mission.

Global ozone mapping is currently a NASA responsibility that is accomplished through their Total Ozone Mapping Spectrometer (TOMS) research mission. Beginning in late 2002 and extending into 2007, NASA will continue its long-term ozone mapping research when an Ozone Monitoring Instrument (OMI) is launched on the EOS Chemistry (CHEM) mission. Complementary atmospheric ozone profile data will be acquired from the nadir-pointing Solar Backscatter Ultraviolet Radiometer/2 (SBUV/2) on the National Oceanic and Atmospheric Administration's (NOAA) Polar-orbiting Operational Environmental Satellites (POES) during this same time period. We are prepared to assume full operational responsibility for global ozone mapping and profiling using the OMPS, when the first NPOESS spacecraft is launched in late 2008. To ensure that a gap in global ozone mapping does not occur in 2007-2008, as the OIG suggests, we believe that NASA, NOAA, and



other international partners should periodically assess the status of space-based ozone measurements and determine methods to maintain the long-term ozone data record utilizing both space-based and *in situ* observations. This approach will be especially important if the OMPS cannot be accommodated on the NPP mission because of cost considerations and agency priorities.

**Finding I: Proposed NPP Reduces Operational Risk, But Excludes Critical Ozone Suite**

The IPO agrees with the comments in the draft report concerning the NPOESS Preparatory Project. The NPP mission concept has been developed jointly with NASA to provide the IPO with a demonstration and validation for three (3) of the four (4) critical NPOESS instruments and to provide NASA with continuation of selected, calibrated, validated, and geo-located global imaging and sounding observations after the EOS AM and PM missions and prior to the NPOESS mission.

**A: High Risk Ozone Sensor Suite Not Considered for Feasibility/Cost Study**

The NPOESS Optimized Convergence Plan initiated in FY 1997 included a risk reduction component to demonstrate selected instruments on an early flight of opportunity. Those instruments included the critical Cross-track Infrared Sounder (CrIS), as well as the Global Positioning System Occultation Sensor (GPSOS) and the OMPS, which are high priority NPOESS sensors. At the time that the Optimized Convergence Plan was formulated, the only spacecraft that was expected to be available for an early flight demonstration was POES-N', the last operational satellite in the POES series. Because of the existing constraints of POES-N', the only planned NPOESS instruments that could possibly be accommodated on the spacecraft were CrIS, GPSOS, and OMPS. The IPO proceeded with feasibility studies for this risk reduction demonstration, even though it would require modifications to an operational satellite and would potentially increase the risk of operational failure of POES-N'. If the opportunity to use a separate, unencumbered, non-operational satellite for an early flight demonstration had been apparent in FY 1997, the IPO would have planned to demonstrate the four critical NPOESS instruments: Visible/Infrared Imager Radiometer Suite (VIIRS); Cross-track Infrared Sounder (CrIS); an advanced cross-track microwave sounder (currently the Advanced Technology Microwave Sounder [ATMS] being developed by NASA for NPOESS); and the Conical-scanning Microwave Imager/Sounder (CMIS). We have been able to leverage other satellite programs to reduce potential development and operational risks for the CMIS

sensor. Through a separate joint program with the Department of Defense (DOD), the IPO has been supporting the WindSat/Coriolis mission that, beginning in late 2001, will provide a space-based demonstration of the passive microwave radiometric measurement technologies that will be incorporated into CMIS.

As the OIG report correctly states on page 6, a detailed NASA study of the modifications to the POES-N' spacecraft that would be required to accommodate CrIS, GPSOS, and OMPS was completed in mid-August 1998 and showed that the costs (\$148 million) would be more than double the original estimate (\$65 million) used for NPOESS current and out-year budgeting. The higher costs for the POES-N' modifications could not be supported by the approved NPOESS out-year budget.

In late August 1998, the IPO and NASA began discussions of an alternative bridging mission, the NPOESS Preparatory Project, to demonstrate early NPOESS operational capabilities and to meet the science needs of NASA's Earth Science Enterprise. In September 1998, the IPO System Program Director and the NASA Associate Administrator for Earth Science directed a joint IPO/NASA team to begin a feasibility study of the NPP mission. Initial planning assumptions included VIIRS, CrIS, and ATMS as the critical three payloads on NPP. However, this did not preclude the NPP team from considering additional payloads. If mass and power margins allow, the IPO/NASA NPP planning team will consider adding a fourth payload to the spacecraft, provided that the program remains affordable and agreements to fund the mission jointly can be negotiated. Potential candidates for this fourth, to-be-determined payload include NASA's Clouds and Earth Radiant Energy System (CERES - also to be flown on NPOESS) and the OMPS.

#### **B: Uncertainties Require Further Alternatives and Cost Analysis**

On pages 6 and 7 of the draft inspection report, the OIG states: "The IPO decision that it lacked sufficient funding to fly OMPS may be premature ... [the] IPO learned in December 1998 that it may receive \$14.7 million unanticipated funding from Defense. The \$14.7 million would be enough to resume the 2002 OMPS delivery schedule." This statement is not accurate.

In FY 1999, the Congressional appropriations for the Department of Commerce reduced NPOESS funding by \$14.7 million. The FY 1999 Congressional appropriations for the Department of Defense sustained the request for the NPOESS program at \$64.7 million. Because of the \$14.7 million

reduction to DOC funding for NPOESS, the IPO had to reduce the projected FY 1999 budget, thereby impacting parts of the program. With the approval of the NPOESS Executive Committee (EXCOM), the IPO eliminated FY 1999 funding for the POES-N' modifications, reduced funding for the Internal Government Studies (IGS) efforts, and reduced funding and stretched out the Phase II production schedules for CrIS, GPSOS, and OMPS instruments. The OMPS delivery schedule was stretched out from 2002 to 2005, when the instrument will be required for integration onto the first NPOESS satellite.

Because the NPOESS program is funded equally by DOC and DOD, it was anticipated that DOD, through the U.S. Air Force, would withhold \$14.7 million in FY 1999 and reprogram these funds for other purposes. This withhold did not occur. However, the \$14.7 million that was finally released by the U.S. Air Force in early January 1999 was not "unanticipated funding from Defense." The \$14.7 million was always a critical part of full funding for NPOESS in FY 1999 to allow the IPO to conduct its budgeted program. If the U.S. Air Force had withheld and reprogrammed the \$14.7 million, there would have been further, more serious impacts to the NPOESS program. This additional reduction would have: (1) eliminated the planned upgrades for the Defense Meteorological Satellite Program (DMSP) Multi-spectral Operational Linescan System (MOLS); (2) reduced funding for the Advanced Technology Support Program (ATSP) efforts; and (3) further reduced funding for IGS activities.

## **Section II: Response to Recommendations**

**Recommendation 1:** Request NASA to include the Ozone Mapper Profiler Suite as a payload alternative in the NPOESS Preparatory Project Mission Concept and Development Plan study.

**Response:** The Integrated Program Office accepts this recommendation. The Assistant Administrator for Satellite and Information Services, the IPO Acting System Program Director, the NASA Associate Administrator for Earth Science, have directed the joint IPO/NASA NPP planning team to include OMPS as a fourth payload alternative in the NPP mission concept and development plan study. NASA recently released a Request for Information (RFI) to solicit proposals from industry to implement a spacecraft for the proposed NPP mission. The RFI includes mass, power, and data rate specifications for a fourth, instrument-of-opportunity payload on NPP. The planning team will conduct a complete assessment to determine

if a fourth payload, such as OMPS, can be accommodated on NPP within affordable agency cost constraints.

**Recommendation 2:** Defer the decision to include or exclude OMPS for the NPP flight demonstration until mission costs are fully analyzed and a cost sharing arrangement is negotiated.

**Response:** The Integrated Program Office accepts this recommendation. A decision on whether a fourth payload can be accommodated on NPP at an affordable program cost, and if so, what that payload will be, will be deferred until NPP mission costs are fully analyzed, IPO and NASA program priorities for NPP are approved by the EXCOM and NASA Headquarters respectively, and an equitable cost sharing arrangement between the IPO and NASA has been negotiated. We expect the NPP study status to be briefed to the EXCOM in the spring of 1999.

Adding a fourth sensor, such as OMPS, to NPP will increase the mass, power, attitude control, command and control, and data transmission requirements that will be placed on the proposed spacecraft. The potential risk is that the NPP mission may not be affordable even with joint IPO/NASA funding, if the spacecraft must be sized and configured to carry four payloads. If a decision is made to carry OMPS as a fourth payload on NPP, then additional funding in the FY 2001 - FY 2004 NOAA budget for NPOESS will be required to accelerate the OMPS instrument fabrication schedule to meet an earlier delivery date for NPP spacecraft integration.

**Recommendation 3:** Assess the operational risk of not demonstrating OMPS.

**Response:** The Integrated Program Office accepts this recommendation. Based on a preliminary assessment of information and documentation received from contractors at the recent (January - February 1999) OMPS Preliminary Design Reviews (PDR) in preparation for the Call For Improvement (CFI) proposals, the IPO believes that the contractors' instrument designs are mature enough to be able to accept the potential risk of not conducting a space-based test of the specific OMPS instrument prior to the first operational NPOESS launch, if OMPS cannot be accommodated on the NPP mission. The global ozone mapping component of OMPS will be derived from the TOMS instrument, a proven space-based, remote sensing technology, as well as the improved technologies that will be demonstrated by the Ozone Monitoring Instrument on NASA's CHEM mission beginning in late 2002. The OMPS will also include a limb sensor, rather than a nadir-pointing sensor (e.g., SBUV/2), to improve the vertical resolution in atmospheric

ozone profile measurements. Although this specific sensor has not yet flown operationally, ozone limb sensors have been demonstrated in space in a research mode as early as 1978 on Nimbus-7. Research limb sounders scheduled for flight by NASA over the next several years include: the Sounding of the Atmosphere using Broadband Emission Radiometry (SABER) on the Thermosphere, Ionosphere, Mesosphere Energetics and Dynamics (TIMED) mission in May 2000; and the High Resolution Dynamics Limb Sounder (HIRDLS) on the CHEM mission. These missions will provide valuable risk reduction information to the IPO and its contractors. We will provide a more complete assessment of the potential operational risks of not demonstrating OMPS to the OIG in May 1999, after the IPO has completed source selection and has awarded a single contract for development and fabrication of the OMPS.

We share the OIG's concern about a potential gap in U.S. space-based global ozone mapping capabilities in the 2007 to 2008 time frame, prior to NPOESS. However, this gap may not occur if NASA's CHEM mission is delayed, or if the CHEM mission and the OMI sensor last longer than the planned five year design life. In addition, other ozone mapping sensors (e.g., the Global Ozone Monitoring Experiment [GOME] on the European Organisation for the Exploitation of Meteorological Satellites [EUMETSAT] Meteorological Observation Satellite Series [METOP]) will be available to help maintain the space-based global ozone mapping mission in that time period.

To ensure that a gap in global ozone mapping does not occur in 2007-2008, as the OIG suggests, we believe that NASA, NOAA, and other international partners, such as EUMETSAT, should periodically assess the status of space-based ozone measurements and determine methods to maintain the long-term ozone data record utilizing both space-based and in situ observations. This approach will be especially important if the OMPS cannot be accommodated on the NPP mission because of cost considerations and agency priorities.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

MAR 31 1999

**MEMORANDUM FOR:** Dr. Kenneth Prewitt  
Director  
Bureau of the Census

**FROM:** Johnnie E. Frazier  
Acting Inspector General

**SUBJECT:** Final Report: *Bureau of the Census—Interagency Agreements  
Require Improvements*  
(IPE-10523)

As a follow-up to our March 9, 1999, draft report, this is our final report on our inspection of the Bureau of the Census's management of obligation and unfunded interagency agreements. The report includes comments from your written response to the draft report. A copy of your entire response is included as an appendix to the report.

This report conveys observations and recommendations that we believe will improve the Bureau of the Census's ability to prepare, review, and maintain agreements in accordance with federal, departmental, and agency guidance. We are pleased that the bureau concurs with our recommendations and plans to implement them.

Please provide your action plan addressing the recommendations in our report within 60 calendar days. We thank bureau personnel for the assistance and courtesies extended to us during our review. If you have any questions or comments about our report or the requested action plan, please contact me on (202) 482-4661.

Attachment

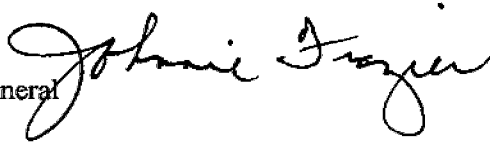
cc: Robert J. Shapiro, Under Secretary for Economic Affairs  
Linda Bilmes, Acting Chief Financial Officer and Assistant Secretary for Administration  
Barbara S. Fredericks, Assistant General Counsel for Administration



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

MAR 31 1999

MEMORANDUM FOR: Barbara S. Fredericks  
Assistant General Counsel for Administration

FROM: Johnnie E. Frazier   
Acting Inspector General

SUBJECT: Final Report: *Bureau of the Census—Interagency Agreements  
Require Improvements*  
(IPE-10523)

As a follow-up to our March 9, 1999, draft report, this is our final report on our inspection of the Bureau of the Census's management of obligation and unfunded interagency agreements. The report includes comments from your written response to the draft report. A copy of your entire response is included as an appendix to the report.

This report conveys observations and recommendations that we believe will improve the Bureau of the Census's ability to prepare, review, and maintain agreements in accordance with federal, departmental, and agency guidance. We are pleased that the bureau concurs with our recommendations and plans to implement them.

We are sending this final report to you because of your office's involvement in the review of the bureau's interagency agreements. We thank your office and staff for the assistance and courtesies extended to us during our review. If you have any questions or comments about our report, please contact me on (202) 482-4661.

Attachment

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	1
BACKGROUND .....	3
OBSERVATIONS AND CONCLUSIONS .....	6
I.    The Bureau Needs to Better Prepare Its Agreements .....	6
A.    Some agreements fail to cite applicable legal authorities .....	6
B.    Bureau does not adequately justify agreements .....	8
C.    Agreements often have incomplete budget information .....	12
D.    Termination dates and review periods are not always defined .....	13
E.    Bureau needs to prepare comprehensive policies and guidelines .....	14
II.   Improvements are Needed in the Review and Oversight of Agreements .....	17
A.    Most agreements are not receiving legal review .....	17
B.    Most agreements are not receiving procurement review .....	19
III.  Bureau Should Develop a Central Database to Inventory and Track Agreements .....	21
RECOMMENDATIONS .....	23
APPENDICES .....	
A.    Bureau of the Census Organizational Chart .....	25
B.    Bureau of the Census's Response to Draft Report .....	26
C.    Office of General Counsel/Administration's Response to Draft Report .....	28



## EXECUTIVE SUMMARY

Interagency and other special agreements are mechanisms for federal agencies to define terms for performing work for others (reimbursable agreements), acquiring work from others (obligation agreements), or coordinating complementary programs without the transfer of funds. These agreements can be between Commerce Department entities; or between one Commerce unit and another federal agency, a state or local government agency, a university, a not-for-profit organization, or a private party. They involve a significant amount of federal resources, but control processes for these agreements are largely a matter of agency discretion, unlike procurement contracts, grants, or cooperative agreements.

The Bureau of the Census uses such agreements to pursue several aspects of its mission to collect and provide timely, relevant, and quality data about the people and economy of the United States. Other federal agencies and non-federal organizations also have similar missions or require information or services from the bureau to fulfill their own unique missions. Agreements are one method for these agencies to formally agree to share information, provide needed services, or coordinate their programs to optimize the benefits from each agency's efforts. If properly prepared, monitored, and controlled, agreements are necessary and beneficial to define the roles and responsibilities of each of the parties so that the greatest return is realized from similar or complementary programs.

This is one report in a series to be issued as part of the Office of Inspector General's Department-wide review of agreements. The purpose of our inspection was to evaluate policies, procedures, and practices being followed by the bureau in its preparation, review, and management of obligation agreements and agreements not involving the transfer of funds. We did not review the bureau's individual reimbursable agreements because they were partially included in an OIG audit of 1997 financial statements.<sup>1</sup> Overall, we found that the bureau uses agreements to support its mission by acquiring and exchanging data, conducting joint statistical projects, and acquiring information technology. However, we also identified the need for significant improvements in the agreements themselves, the review process, the policies that govern obligation agreements and agreements not involving the transfer of funds, and the tracking of agreements.

During our review of bureau agreements, we made the following observations:

- ▶ **Agreements are not always properly prepared**—The bureau does not consistently (1) cite an applicable legal authority, (2) prepare written justifications, (3) include total project costs and budget summaries, and (4) define termination dates or review periods. This could cause the improper depositing and handling of finances associated with agreements, the violation of legal authorities, the violation of financing provisions of the

---

<sup>1</sup>Census Financial Statements, FSC-8836-7-0001, February 1997.

Economy Act or Joint Project Authority, or the performance of work that is no longer mission-related (see page 6).

- ▶ **Oversight process for reviewing agreements is inadequate**—We found that few bureau agreements receive legal or procurement review. Only 2 of the 26 sampled agreements from fiscal year 1997 received legal review. Currently, the bureau does not have any policy or regulation, that stipulates when Office of General Counsel (OGC) review is required before an agreement is signed. An April 1994 memorandum from Commerce's General Counsel states that Economy Act and joint project agreements "should" be sent to OGC for review. Departmental personnel have interpreted this OGC guidance as permitting some amount of discretion. Although OGC officials stated that they expect to review all funded and unfunded agreements unless a specific delegation has been granted to a bureau or line office, they were not aware of the large number of agreements that they do not review. The bureau also does not have any requirement that its obligation agreements are reviewed by the appropriate procurement officials. While we realize that legal and procurement reviews take time and effort, we believe that they are necessary to ensure that bureau commitments are appropriately made and its resources are safeguarded. The bureau needs to develop formal, consistent policies and guidelines to ensure that its agreements are prepared properly and receive all necessary oversight reviews (see page 17).
- ▶ **Bureau should develop a central database to inventory and track agreements**—Although the bureau has separate financial systems for tracking reimbursable and obligation agreements, there is neither a repository nor a central listing of all agreements. We believe that a central database of all types of agreements would be a useful management and administrative tool, providing basic information, such as how many agreements exist, what agencies and other parties are involved, and total funding involved in agreements. This should help the bureau better manage its resources and better define performance measures and demonstrate results (see page 21).

On page 23, we offer a series of recommendations to address our concerns.

---

In their responses to our draft report, the Principal Associate Director and Chief Financial Officer for the Bureau of the Census and the Chief of the General Law Division of the Office of Assistant General Counsel for Administration generally agreed that the Bureau of the Census's agreements require better management and oversight, including better written guidance on how agreements should be drafted and reviewed. They also suggested some changes to the body of the reports. We have taken these comments into consideration and have made changes as appropriate. A copy of each of the responses is included in its entirety as appendices to this report.

## INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General conducted an inspection of the Bureau of the Census's management of interagency and other special agreements. Because the bureau uses hundreds of agreements to fulfill its mission, the bureau's ability to properly prepare, review, and track agreements is essential.

Inspections are special reviews that the OIG undertakes to provide agency managers with timely information about operations, including current and foreseeable problems. Inspections are also done to detect and prevent fraud, waste, and abuse, and to encourage effective, efficient, and economical operations. By highlighting problems, the OIG intends to help managers move quickly to address those identified during the inspection and avoid their recurrence. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere.

We conducted our inspection from November 1, 1997, through May 15, 1998, in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. The inspection was conducted as part of a larger, Department-wide review of these agreements. Prior to the issuance of this report, we discussed our preliminary findings with bureau staff in the Budget Division and the Finance Division.

## PURPOSE AND SCOPE

Interagency and other special agreements are mechanisms for federal agencies to define terms for performing work for others (reimbursable agreements), acquiring work from others (obligation agreements), or coordinating complementary programs without the transfer of funds. Because reimbursable agreements were partially included in our review of the bureau's fiscal year 1997 financial statements, we excluded reimbursable agreements from our inspection.<sup>1</sup> As a result, in this inspection only obligation agreements and agreements not involving funds transfers (including unfunded agreements) were evaluated.<sup>2</sup> These agreements can be between Commerce Department entities; or between one Commerce unit and another federal agency, a state or local government agency, a university, a not-for-profit organization, or a private party. They involve a significant amount of federal resources, but control processes for these agreements are largely a matter of agency discretion, unlike procurement contracts, grants, or cooperative agreements.

---

<sup>1</sup> *Census Financial Statements*, FSC-8836-7-0001, February 1997.

<sup>2</sup> According to a memorandum dated December 29, 1997, from the Department's Assistant General Counsel for Administration to NOAA's Assistant Administrator for Fisheries, "Unfunded agreements . . . neither make an obligation or commitment nor transfer funds or property."

We defined interagency and other special agreements as those agreements that are *not* grants, cooperative agreements, or procurement contracts.<sup>3</sup> For simplicity, we use the term "agreement" to refer to the various types of interagency or other special agreements within our scope. Agreements can include memoranda of agreement or understanding, joint project agreements, interagency purchase orders that document both parties' acceptance, or any other document that details the terms of an agreement and the parties' acceptance. Agreements can transfer funds from one party to the other, bind one or both parties to commit funds or resources to a project, or not involve any resources.

In 1994, we examined agreements for reimbursable work performed by the National Telecommunications and Information Administration and found several problems, including more staff than necessary for its mission because of its over-reliance on reimbursable funding.<sup>4</sup> That same year, we also issued letter reports to the International Trade Administration (ITA) and the National Oceanic and Atmospheric Administration on their respective agreements. Our report to ITA cited the fact that it had not provided a complete and timely accounting of all agreement costs and expenditures to other parties to its agreements.<sup>5</sup> In our report to the NOAA Comptroller, we expressed our concerns about NOAA's ability to produce a concise, credible inventory of interagency agreements.<sup>6</sup> Then, in 1995 and 1996, respectively, the OIG reported that NOAA's National Marine Fisheries Service and Office of Oceanic and Atmospheric Research consistently undercharged for services they provided under agreements.<sup>7</sup> Due in part to the concerns raised in these reports, we began our current Department-wide review of agreements.

---

<sup>3</sup>The Federal Grant and Cooperative Agreement Act of 1978 defines procurement contracts, grants, and cooperative agreements in the following manner. **Procurement contracts**—"legal instruments reflecting a relationship between the United States Government and a State, a local government, or other [non-federal] recipient when . . . the principal purpose . . . is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the United States government." 31 U.S.C. § 6303. **Grants**—legal instruments used when "(1) the principal purpose of the relationship is to transfer a thing of value to a State or local government or other recipient to carry out a public purpose of support or stimulation authorized by a law of the United States . . . and (2) substantial involvement is not expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement." 31 U.S.C. § 6304. **Cooperative agreements**—differ from grants only in that they are to be used when substantial involvement by the executive agency is expected. 31 U.S.C. § 6305.

<sup>4</sup>*NTIA Interagency Agreements, Institute for Telecommunication Sciences, IRM-5723, January 1994.*

<sup>5</sup>*Interagency Agreements Conducted by the International Trade Administration, IRM-6290, September 1994.*

<sup>6</sup>*Preliminary Findings Regarding Inspection Work on NOAA Interagency Agreements, IRM-6291, September 1994.*

<sup>7</sup>*NMFS Cost Recovery for Sponsored Research Needs Improvement, STL-6528, May 1995; OAR's Cost Recovery for Sponsored Research Needs Improvement, STL-7658, June 1996.*

The purpose of the inspection was to evaluate policies, procedures, and practices being followed by the bureau in carrying out its responsibilities related to fiscal year 1997 obligation agreements and agreements not involving funds transfers. We also looked at active decennial-related agreements across all fiscal years. The scope of our inspection included determining whether these agreements, (1) meet legal and regulatory requirements; (2) support the bureau's mission; (3) are appropriate and effective tools for obtaining the desired goods or services; and (4) are prepared and reviewed in a manner that establishes sufficient management and financial controls.

The bureau had 81 obligation agreements and 40 agreements not involving funds transfers active in fiscal year 1997. Of these, we sampled 20 (22 percent) and 6 (12 percent) respectively. We chose all obligation agreements valued at \$100,000 or more to cover the majority of the funds transferred through agreements. Because of the upcoming decennial census, we included all decennial-related obligation agreements as well as agreements not involving funds transfers in this sample. We also looked at the relationship of the agreements to the bureau's mission and whether the agreements were possibly being used to circumvent procurement or financial assistance processes.

## BACKGROUND

The Bureau of the Census's mission is to be the preeminent collector and provider of timely, relevant, and quality data about the people and economy of the United States. In addition to the bureau's decennial census, the bureau conducts other censuses and demographic and economic surveys to fulfill its mission and for the federal government, state governments, cities, local governments, and others. The bureau's economic statistics program collects data for federal statistics generated at other agencies including the gross domestic product, the merchandise trade balance, and the producer price index. The bureau's demographics program provides estimates of population, and official statistics on income, housing, and other socio-economic issues. The bureau disseminates the results of these surveys and censuses through the printing of the *Statistical Abstract of the United States*, making databases available over the Internet and through the sale of CD-ROMs.

### Bureau agreements in fiscal year 1997

In fiscal year 1997, the bureau had approximately 689 agreements, involving more than \$207 million in funds received for reimbursable activities or obligated to acquire goods or services from other parties (see Table 1).<sup>8</sup> This figure includes 40 agreements where bureau resources

---

<sup>8</sup> The 689 agreements and associated funding are estimates based on the best information available at the time of this review. As discussed on page 21, the bureau does not have a single database or other record-keeping system that has complete and reliable information about all types of agreements. The list includes memoranda of agreement or understanding, which represent obligation and reimbursable agreements, and large or small interagency purchase orders.

were committed to performing activities under memoranda of understanding or agreement, but there was no transfers of funds.

**Table 1: Bureau of the Census Agreements (Fiscal Year 1997)**

<b>Types of Agreements</b>	<b>Estimated Value</b>	<b>Total</b>	<b>Sampled</b>
Reimbursable	\$197,021,000	568	0
Obligation	10,360,000	81	20
Agreements not involving a funds transfer	0	40	6
<b>TOTAL</b>	<b>\$207,381,000</b>	<b>689</b>	<b>26</b>

The bureau uses most of its agreements to perform surveys and censuses for states, cities, local governments, and other users. The bureau also acquires goods and services through agreements with other federal agencies including information technology support, leasing of copiers, and acquisition support. For example, to increase the public's access to data and comply with Title 13, the bureau enters into agreements to acquire and/or share data with other federal agencies.<sup>9</sup> Often, the bureau must pay the other agency for preparing and transferring the data through an obligation agreement; however, sometimes the other agency provides the data free of charge through an agreement not involving funds transfers. In addition to data exchange agreements, the bureau has multiple agreements with the Social Security Administration and the Bureau of Labor Statistics for conducting joint studies and cooperating to improve the reliability of data and statistics. These agreements do not involve the transfer of funds. State governmental bodies and non-profit organizations have also entered into this type of agreement with the bureau to help disseminate public data and assist in data collection.

Recent changes in bureau policies and procedures for obligation agreements

In July 1997, the bureau's Budget Division issued a memorandum to strengthen the review process for obligation agreements. Legal review was mandated for all Cooperative Research and Development Agreements (15 U.S.C. 3710a) and all agreements that cite the Joint Project Authority (15 U.S.C. 1525). However, agreements citing other authorities such as the Economy Act are not required under the policy to receive legal review. Interestingly, the Department's Office of General Counsel orally indicated to the Budget Division in 1997 and other personnel that all obligation agreements, regardless of legal authority, should be sent for review and approval. However, this oral instruction has not been formalized into a written policy.

---

<sup>9</sup> 13 U.S.C. § 6 (c) states "[t]o the maximum extent possible and consistent with the kind, timeliness, quality and scope of the statistics required, the Secretary shall acquire and use information available from [federal agencies, state and local governments and private persons or organizations]."

The bureau's new procedures also specified necessary information for obligation agreements including a unique interagency agreement number, a legal authority citation, a statement of work, principal contact names, financial information, a termination provision, signature authorizations, and routing instructions. The July 1997 memorandum also established routing and approval requirements. For example, the bureau's Budget Division must review and approve all obligation agreements that cite the Joint Project Authority.

Office of Inspector General reports on departmental policies and procedures

This is one report in a series to be issued as part of our Department-wide review of agreements. In September 1998, we issued a report to the Department's Chief Financial Officer and Assistant Secretary for Administration and the General Counsel addressing our concerns about Department-wide internal management and oversight of agreements.<sup>10</sup> We recommended that the Department prepare formal policies and procedures, outlining the types of agreements that can be entered into by Commerce bureaus; the minimum necessary contents and steps for preparing agreements; standard language or form agreements; and the review, approval, and renewal policies and procedures that should be followed by all Commerce bureaus. The bureau should be aware that the Department will soon develop Department-wide guidance on agreements. As a result, the bureau will have to make its internal procedures consistent with this forthcoming departmental guidance.

---

<sup>10</sup> Final Inspection Report: *Office of the Secretary--Interagency and Other Special Agreements Require Better Management and Oversight*, IPE-10418, September 1998.

## OBSERVATIONS AND CONCLUSIONS

### I. The Bureau Needs to Better Prepare Its Agreements

We reviewed a sample of the bureau's 689 agreements to determine whether they were properly prepared and justified. In reviewing the 26 agreements in our sample, we found that the agreements were being used to further the bureau's mission. In some cases, data exchange and data purchasing agreements with other federal agencies were cost effective ways of acquiring necessary information without the bureau having to gather the data itself. In other cases, either the needed services were only available from other federal agencies, or the cost of the services was significantly lower than it would be if obtained from the private sector. For example, by acquiring arrest records and fingerprint checks on prospective employees from the Justice Department, the bureau achieves a fast turnaround time with the only comprehensive arrest record and fingerprint database in the country.

However, we did find deficiencies in a number of agreements during our review. Specifically, we found significant inadequacies with information contained in most agreements, including the lack of (1) citation of applicable legal authority, (2) written justifications, (3) total project costs and/or budget summaries, and (4) termination dates or review periods.

#### A. Some agreements fail to cite applicable legal authorities

The bureau's July 1997 policy for obligation agreements requires that each obligation agreement contain a legal authority citation based on the Economy Act of 1932 (31 U.S.C. §§ 1535-1536), Joint Project Authority (15 U.S.C. §§ 1525-1526 second paragraph), or the Special Studies provision (15 U.S.C. §§ 1525-1526 first paragraph).<sup>11</sup> Bureau agreements also cite the Intergovernmental Cooperation Act (31 U.S.C. § 6505), Federal Technology Transfer Act of 1986 (15 U.S.C. §§ 3710a-3710d), and General User Fee Authority under 31 U.S.C. § 9701. Program authority may also exist as a result of other congressional actions. For example, the bureau has specific authority to enter into Joint Statistical Agreements with non-profit organizations under 13 U.S.C. § 8(b).

Citation to proper legal authority is important because the type of authority chosen for a particular agreement affects the treatment of funds transferred under the agreement, and the timing and disposition of receipts. For example, the Economy Act requires that all payments for work or services performed be deposited to the appropriation or fund against which the charges have been made. Under the Joint Project Authority, all payments are deposited into a separate account that may be used to directly pay the costs of work or services performed, to repay advances, or to refund excess sums when necessary. All receipts for furnishing specialized or technical services authorized under the Intergovernmental Cooperation Act may be deposited in

---

<sup>11</sup> July 28, 1997, Budget Division memorandum to bureau offices.



the appropriation or account from which the cost of providing such services has been paid or is to be charged. In contrast, fees collected as user fees must be returned to the U.S. Treasury in full unless existing statutes specifically provide otherwise. Without an accurate citation, the bureau cannot be certain that it is properly depositing and handling funds associated with agreements.

The type of legal authority used also affects the period of availability for funds transferred under an agreement. For Economy Act agreements, the period of availability of funds transferred may not exceed the period of availability of the source appropriation. Accordingly, one-year funds transferred by the requesting agency must be returned at the end of that fiscal year and deobligated by that agency, to the extent that the performing agency has not performed or incurred valid obligations under the agreement. When the agreement is based on some statutory authority other than the Economy Act, the funds will remain payable in full from the appropriation initially charged, regardless of when performance occurs. The funds are treated the same as contractual obligations, subject, of course, to the "*bona fide* needs" rule<sup>12</sup> and to any restrictions in the legislation authorizing the agreement. Therefore, it is necessary to determine the correct statutory authority for any agreement, in order to apply the proper obligational principles.

In addition, legal authority citations are necessary because they set the parameters for agreements, establish programmatic authority to cooperate or perform joint activities, and help prevent activities within agreements that would otherwise be forbidden.

#### Some obligation agreements lacked an applicable legal authority

We found that the bureau did not cite an applicable legal authority in 5 of 20 obligation agreements we reviewed. Fifteen of the 20 agreements were signed before the bureau's July 1997 policy that required a citation to legal authority came into effect. Because of this, only a small portion of agreements we reviewed were affected by the new policy. However, we found that 11 of these 15 agreements in effect before July 1997 cited a legal authority for the funds transferred. The Economy Act was the legislation most often cited, followed by the Information Technology Management Reform Act and other authorities specific to the other agencies. Of the five obligation agreements we reviewed that came into effect after the legal authority citation requirements were instituted, four had the required legal authority citations.

Although our sample does not allow us to state definitively that legal citations are now being included in most bureau obligation agreements, it appears that the new policy is leading to an increased citation of legal authority. However, citation to a legal authority should be made in all bureau agreements.

---

<sup>12</sup>The *bona fide* needs rule states that a fiscal year appropriation may be obligated only to meet a legitimate or *bona fide* need arising in, or in some cases arising prior to but continuing to exist in, the fiscal year for which the appropriation is made.

Most agreements not involving funds transfers lacked an applicable legal authority

Of the six agreements not involving funds transfers that we reviewed, only two cited legal authority. Although authority for funds transfers are not an issue with these agreements, legal authority citations are necessary because they set the parameters for agreements, establish programmatic authority to cooperate or perform joint activities, and help prevent activities within agreements that would otherwise be forbidden.

We found that the bureau has not developed policies and procedures to ensure that agreements not involving funds transfers are consistently and properly prepared and comply with the specific agreement authorities. There is also limited Department-wide guidance on preparation of these agreements. Currently, lacking adequate guidance, bureau officials are unaware of the requirements for writing agreements. Consequently, bureau program officials have no basis or standard for preparing new agreements not involving funds transfers except to look at previous agreements. Obviously, any problems with previous agreements are then perpetuated through new agreements. However, we did find that bureau officials are in the process of preparing policies and procedures for agreements that involve exchanges of data, which comprise the majority of agreements not involving funds transfers. The guidelines outline the Policy Office's clearance process and signature authority.<sup>13</sup>

**B. Bureau does not adequately justify agreements**

When a legal authority was cited, we found that most of the obligation agreements we reviewed contained limited documentation to show whether bureau personnel have prepared sufficient justification to support the agreements' legal citations. For example, for obligation agreements where the bureau pays for services from other federal agencies under the Economy Act, we found that the bureau does not consistently prepare a determination and finding required by the *Federal Acquisition Regulation*.<sup>14</sup> Of the 20 obligation agreements we reviewed, 9 cited the Economy Act, which requires the preparation of a determination and finding. However, the bureau did not prepare a determination and finding for any of the nine agreements. Without written justifications that the relevant criteria have been met, it is not possible to verify whether proper consideration of those criteria has taken place or whether the use of the cited legal authority is appropriate.

---

<sup>13</sup>All agreements not involving funds transfers signed by the Director or Deputy Director are controlled by the correspondence management staff within the Policy Office and are cleared by the originating division. Signature authority is dependent upon the level of approval required by the partner agency.

<sup>14</sup>A determination and finding documents that "(1) use of an interagency acquisition is in the best interest of the Government; and (2) the supplies and services cannot be obtained as conveniently or economically by contracting directly with a private source." [*Federal Acquisition Regulation* § 17.503(a)].

For an agreement to be legal, the requirements of the cited statutory authority must be met. Additionally, for user fee agreements subject to Office of Management and Budget Circular A-25, the bureau must ensure that relevant criteria are met before citing specific legal authorities that are the basis for their agreements. These criteria range from ensuring that necessary funds are available, to determining that the service a government entity will provide does not compete with the private sector. Table 2 lists the key legal authorities used for agreements and the criteria that must be met in order to properly use the legal authority. Although the criteria in Table 2 must be met, written justifications addressing these factors, are not always required.

**Table 2: Summary of Key Legal Authorities and Criteria**

Legal Authority	Applicable Criteria
Economy Act of 1932 (31 U.S.C. § 1535)	<ul style="list-style-type: none"> <li>a. Other party to the agreement is another government agency.</li> <li>b. Funds are available.</li> <li>c. The head of the ordering agency decides the order is in the best interest of the government.</li> <li>d. The agency filling the order is able to provide the goods or services.</li> <li>e. The head of the ordering agency decides whether or not the ordered goods can be provided as conveniently or cheaply by a commercial enterprise.</li> </ul>
Joint project authority and User fee authority (15 U.S.C. § 1525)	<ul style="list-style-type: none"> <li>a. Other participants are eligible entities, including non-profit organizations, research organizations, or public organizations or agencies.</li> <li>b. Matters are of mutual interest.</li> <li>c. The total costs (sum of costs for all participants in the joint project) for such projects must be apportioned equitably.</li> <li>d. Joint projects may be performed only if (1) the project cannot be done at all or as effectively without the participation of all parties to the project and (2) the project is essential to the furtherance of a departmental program.</li> </ul>
Intergovernmental Cooperation Act (31 U.S.C. § 6505)	<ul style="list-style-type: none"> <li>a. Agencies may provide specialized or technical services for state or local governments that the agency is especially competent and authorized by law to provide.</li> <li>b. The services must be consistent with and further the government's policy of relying on the private enterprise system to provide services reasonably and quickly available through ordinary business channels.</li> <li>c. Services may be provided only when there is a written request for those services made by the state or local government. The requestor must also pay all identifiable costs incurred by the agency in rendering the service.</li> </ul>
General user fee authority (OMB Circular A-25)	<ul style="list-style-type: none"> <li>a. Agencies may impose a fee for an activity that conveys special benefits to its recipient(s) beyond those accruing to the general public.</li> </ul>
Federal Technology Transfer Act (15 U.S.C. § 3710a)	<ul style="list-style-type: none"> <li>a. Agency program missions shall be advanced.</li> <li>b. Special consideration shall be given to small businesses and to businesses that agree to manufacture any products in the United States.</li> </ul>

The *Federal Acquisition Regulation* prescribes the policies and procedures applicable to interagency acquisitions only under the Economy Act. Under that act, when a government agency purchases a good or service from another government agency, the requesting agency must prepare a determination and finding. A determination and finding documents that "(1) [u]se of an interagency acquisition is in the best interest of the Government; and (2) [t]he supplies and services cannot be obtained as conveniently or economically by contracting directly with a private source."<sup>15</sup> According to the *Federal Acquisition Regulation*, a determination and finding "shall be approved by a contracting officer of the requesting agency with authority to contract for the supplies or services to be ordered, or by another official designated by the agency head...."<sup>16</sup> Additional matters must be addressed in the determination and finding if the Economy Act order requires contracting by the servicing agency. For example, the servicing agency must document that at least one of the following circumstances is applicable: (1) the acquisition will appropriately be made under an existing contract, (2) it has capabilities or expertise to enter into a contract and such capability or expertise is not available within the requesting agency, or (3) it is specifically authorized by law or regulation to purchase such supplies or services on behalf of other agencies.

In addition, to the extent that the bureau is engaging in a commercial activity, a determination and finding must also incorporate an economic analysis in accordance with Office of Management and Budget Circular A-76. The *FAR* specifically states that acquisitions under the Economy Act are not exempt from Circular A-76 requirements.<sup>17</sup> This circular prohibits the government from starting or continuing activities to provide a commercial product or service if the product or service can be purchased more economically from a private source.<sup>18</sup> To this end, a requesting agency must prepare an analysis of its requirements to determine that use of another agency's resources is necessary because (1) there is no satisfactory commercially available source, (2) the required goods or services are a matter of national defense or government medical patient care, or (3) procuring from another agency is the lowest cost solution.

The *Federal Acquisition Regulation* requirement for requesting agencies to prepare a determination and finding for Economy Act transfers appears to be the only regulation that explicitly requires a written justification addressing relevant legal criteria.<sup>19</sup> Yet, for all types of

---

<sup>15</sup> *Federal Acquisition Regulation* § 17.503(a).

<sup>16</sup> *Federal Acquisition Regulation* § 17.503(c).

<sup>17</sup> *Federal Acquisition Regulation* § 17.502(c), citing *Federal Acquisition Regulation* § 7.3.

<sup>18</sup> *OMB Circular A-76*, part 8.

<sup>19</sup> In addition to a determination and finding, the *Federal Acquisition Regulation* requires that Economy Act agreements include provisions such as a description of the supplies or services required, delivery requirements, a funds citation, payment terms, and acquisition authority, as may be appropriate. *Federal Acquisition Regulation* § 17.504(b).

agreements regardless of the legal authority cited, written justifications, which prove that the legal criteria have been met, represent a good management practice. Several of the criteria listed in Table 2 are complex, such as the Joint Project Authority requirement that the project cannot be done at all or as effectively without the participation of all parties or the Intergovernmental Cooperation Act requirement that the servicing agency be especially competent to provide the service. Without the aid of a written justification, it may be difficult to show that the criteria for some agreements have been met. In addition, managers or other officials who review agreements that they did not negotiate need sufficient written documentation to determine that all relevant criteria have been met.

While the applicable statutory authorities do not necessarily require written justifications addressing the applicable criteria, informal or non-systematic review of complex issues can result in insufficient consideration being given to the criteria for these authorities. With the assistance of the Department's Office of General Counsel, the bureau should review existing laws, including those listed in Table 2, and determine what requirements would be better supported by increased written justifications. Then, the bureau should provide the programs with adequate guidance and oversight to ensure that agreements include appropriate written documentation to prove that the relevant criteria have been met.

**C. *Agreements often have incomplete budget information***

We found that only 5 percent (1 of 20) of the obligation agreements we reviewed included total project costs combined with acceptable budget summaries. Estimating total project costs, including the performing agency's contributions, and budget summaries is necessary to comply with applicable legal authorities such as the Economy Act and the Joint Project Authority. Without an estimate of a project's total costs, (1) managers and reviewers cannot accurately determine whether full costs are being recovered or if costs have been apportioned equitably for joint projects, (2) an agreement may not receive approval at an appropriate level within the organization since approval levels are often set at specific dollar thresholds, and (3) it cannot be determined if the government is providing a service or product more economically than the private sector.

Similarly, the lack of detailed budget information prevents a full understanding and accounting of the purposes for which the bureau's appropriations are being expended. If the project is a joint project, the agreement should indicate the contributions of each organization and explain how costs are apportioned equitably in relation to the benefits received. Accurate, detailed budget summaries also assist managers and reviewers in assessing the estimated cost of an agreement. Therefore, bureau officials reviewing agreements should ensure that total project costs and budget summaries, including the bureau's contributing share, are defined in the agreement. If that information is provided in the proposal exclusively, the bureau should require that the proposal be expressly incorporated by reference in the agreement.

---

OGC/Administration questioned the necessity of detailed budgets for all agreements under the Joint Project Authority. OGC stated that Commerce program officials have found it difficult to obtain detailed budgets from some proposed outside partners in joint projects. The proposed partner's extra administrative work of developing budget information was described as a potential "deal breaker." Although we appreciate that there is some work involved in developing budget estimates, we believe that a budget with a reasonable breakdown of costs is necessary to ensure that the agreement complies with statutory and regulatory requirements. We question the wisdom of entering into agreements with organizations that are unwilling to provide an estimate of total project costs coupled with a reasonable breakdown of those costs.

***D. Termination dates and review periods are not always defined***

We found that 54 percent (14 of 26) of the agreements we reviewed did not define a review period or termination date to ensure that agreements are properly administered and kept up-to-date. When the stated performance period is undefined or indefinite, it is difficult to determine whether the agreement is still valid and whether reassessment of the agreement ever occurred. Even if a need still exists, as time passes, critical features of the project such as the level of funding or other resources, may need modification. In addition, an ill-defined performance period may ultimately result in the performance of work that is no longer mission-related, the waste of funds and personnel, or the inequitable apportioning of project costs. All bureau agreements should have a defined performance period with a stated effective date and, when possible, a specific termination date. For agreements that continue over an extended term, where it is not feasible to define a termination date, the agreement should have a provision for a periodic review and amendment by mutual consent of the parties.

In addition, the bureau has not developed a policy establishing when and how often agreements should be reevaluated to determine if the project is still justified and consistent with both Census and Commerce missions. Currently the bureau lacks an established practice for reviewing agreements after they are implemented. The bureau should ensure that its agreements are reviewed, and revised or renewed as appropriate, at least every three years. Any policy should also indicate which officials or officers are responsible for the review.

---

In responding to our draft report, OGC indicated its preference for flexibility on the requirement for a termination date or review period. It had been made aware of "instances where an operating unit of the Department will have negotiated very favorable terms in an agreement, and will want to have those terms to continue for as long as possible." Although there may be instances in which the Department has negotiated a "good deal," we do not feel that the potential harm of renegotiating favorable agreement terms outweighs the cost and program benefits outlined above

that can be gained from periodic reassessment of agreements. Thus, we have reaffirmed our recommendation in this area.

***E. Bureau needs to prepare comprehensive policies and guidelines***

We were pleased to see that the bureau's Budget Division had issued a policy on obligation agreements in July 1997. However, that policy needs to be revised. Building on the policy for obligation agreements issued by the Budget Division in July 1997, the bureau should prepare a comprehensive set of guidelines for preparing all types of bureau agreements that is consistent with forthcoming departmental guidance and incorporates the requirements for legal and other oversight reviews of agreements that are discussed in subsequent sections of this report. These guidelines should include:

- standardized agreement definitions, steps for preparing agreements, and the provisions necessary for compliance, and at least the following requirements: full cost recovery (where applicable), equitable apportionment of costs for joint projects, citation of legal authorities, appropriate level of approval, applicable written justifications, total project costs, applicable justifications, and termination dates and/or review periods;
- guidance that requires program officials to notify other agencies of what terms are required in Bureau of the Census agreements and to modify or amend incomplete agreements; and
- mechanisms that ensure bureau agreements are reviewed, and revised or renewed as appropriate, at least every three years.

The bureau should also distribute relevant information for preparing and processing agreements internally through its Intranet and at appropriate bureau management and administrative conferences. Any subsequent changes in federal, departmental, or bureau regulations or procedures and applicable laws should also be widely distributed. Once bureau policies and procedures have been finalized, training should be provided to all appropriate staff on how to properly prepare and process agreements.

In addition to a clear policy, the bureau, in conjunction with OGC, should develop standard agreement language for use by bureau programs. The bureau believed that standard language was important enough to create Form BC-505A for reimbursable agreements, which could be used to establish a similar form or a master form for establishing some obligation agreements as well. This form provides information relevant to the terms of the agreement, such as, the responsible parties entering the agreement, the nature of program, financial cost, method of billing, and legal authority. However, Form BC-505A needs revision if it would be used for establishing obligation agreements using the Economy Act because the form does not include all required information for obligation agreements (e.g., determination and findings or contracting



officer's signature when necessary). While the varied nature of obligation agreements and agreements not involving the transfer of funds does not allow for a rigid set of guidelines, pre-approved language that is regularly reviewed and updated would facilitate the process by making agreements easier to draft and to review.

---

In its response to our draft report, the Bureau of the Census concurred with our recommendations to (1) develop a comprehensive set of guidelines for the preparation and review of all types of bureau agreements; (2) distribute relevant information for preparing and processing agreements internally; and (3) provide training on how to properly prepare, process, and review agreements to all program and administrative staff responsible for agreements.

The bureau's CFO made two general comments in response to our draft report. First, because reimbursable agreements were excluded from the scope of our review, our repeated mention of them creates a certain amount of confusion. Second, the review is based on agreements that are at least two years old and does not fully reflect the relatively new policies and procedures that the bureau has enacted. We mention reimbursables only in the background section and in sections pertaining to agreement policies and procedures to ensure that any bureau guidance covers all types of interagency agreements. Bureau program and administrative staff should be able to consult one authoritative source to determine the requirements and procedures for reimbursable agreements, obligation agreements, and agreements not involving the transfer of funds. We recognize that the bureau has improved some of its policies and procedures since the time of our review, but we could not determine with our sample the extent to which the July 1997 obligation agreement policy resulted in better agreements. The bureau's current policies and procedures for agreements still need the improvements and safeguards discussed in our report.

The bureau has stated its intent to revise its current guidelines and update them to incorporate relevant departmental guidance when it becomes available. The bureau plans to make use of many data dissemination methods to keep staff abreast of the latest agreement processing and preparation guidance. The bureau will provide them training regarding agreements after the guidance is finalized.

OGC/Administration stated that our recommendation to revise form BC-505A for establishing obligation agreements using the Economy Act could create confusion about the proper uses of the form. We agree that BC-505A is intended to be used solely for agreements under the Joint Projects Authority (15 U.S.C. § 1525) and the bureau's joint statistical authority (13 U.S.C. § 8b). We never intended to suggest that the form BC-505A was crafted for Economy Act obligation agreements or obligation agreements under other legal authorities. Rather, we stressed the usefulness of the form that perhaps could be expanded to cover obligation agreements using the Economy Act. We have clarified the wording in our report.

OGC/Administration questioned the need for our recommendation that the bureau's policies and procedures include formal procedures to notify other agencies of what terms are required in Bureau of the Census agreements and to modify or amend incomplete agreements.

OGC/Administration noted that "informing another party of the terms you require to be in an agreement is merely part of the process of negotiating an agreement." While we understand OGC's desire for flexibility, we include this requirement in the recommendation because both the bureau and other departmental units have standard form agreements from other federal agencies that were deficient and, unfortunately, were not corrected through the negotiation process. We have modified the wording of the recommendation for greater specificity.

## II. Improvements are Needed in the Review and Oversight of Agreements

We found that the bureau's agreement review process was inadequate, resulting in inadequate oversight and incomplete agreements. Bureau offices have followed an inconsistent and partially documented process for reviewing agreements. Although the bureau has developed some policies and procedures for the oversight and review of agreements, the policies are not comprehensive for all types of agreements. The new policies for obligation agreements institute some necessary requirements and controls, but are deficient in review policies and procedures. For agreements not involving funds transfers, the bureau also lacks review policies and procedures. As a result, for both obligation agreements and agreements not involving funds transfers, only some are reviewed by the bureau's procurement and/or legal offices, despite the critical need for these offices to review most such agreements before they are signed. Only a budget review is consistently occurring. Therefore, we believe that the bureau's legal and procurement review process needs to be improved and documented. New, comprehensive guidelines for such oversight should be prepared, in consultation with the appropriate department oversight offices, and made a part of the bureau's overall policies and guidance covering agreements, as discussed in the previous section of this report (see page 14).

### A. Most agreements are not receiving legal review

We could only confirm that 2 of the 26 sampled agreements had received legal review. Currently, the bureau lacks any policy or regulations that establish criteria for when OGC review is required before an agreement is signed. An April 1994 memorandum from Commerce's General Counsel states that Economy Act and joint project agreements "should" be sent to OGC for review. However, departmental and bureau personnel have interpreted this guidance as permitting some amount of discretion. Although OGC officials told us that they expect to review all funded and agreements not involving the transfer of funds unless a specific delegation has been granted to a bureau or line office, we found that they were unaware of the large number of agreements that they did not review.

We were unable to determine the level of compliance with OGC's April 1994 request for two reasons. First, because the bureau lacks a unified database of its agreements indicating all reviews conducted (see page 21), we were unable to determine what agreements the bureau has received and reviewed and then sent to OGC for review. Second, OGC's tracking system is a word processing-based system and not a database that can readily be used to determine which agreements its system contains without painstakingly searching through the file on a chronological basis.<sup>20</sup> Word searches are problematic due to the similarity of agreement titles and no standard method for describing agreements. While OGC's system contains useful information, a word processing file makes data searches and extractions time-consuming tasks.

---

<sup>20</sup>Final Inspection Report: *Office of the Secretary--Interagency and Other Special Agreements Require Better Management and Oversight*, IPE-10418, September 1998.

As a result, easily determining what agreements OGC has reviewed was not feasible.

Personnel in the bureau's Policy Office stated that all agreements signed by the Director receive prior legal review and clearance, while all agreements signed at the Associate Director level may or may not receive legal review depending on the policies and procedures of the program area. However, we could not verify this statement. Prior to July 1997, neither OGC nor the bureau required a signature showing that a legal review had occurred.

As part of the bureau's July 1997 guidelines, each bureau division must prepare Census Transmittal Form BC-1797 documenting through a signature, who has reviewed an agreement. Because these guidelines were new, only five of the agreements that we sampled took effect after the guidelines were issued. Therefore, we were unable to determine whether bureau offices were complying with the guidelines. However, if the agreements we sampled are representative of all the agreements, most bureau agreements may not be receiving legal review.

If an agreement has not been reviewed by legal counsel, it may (1) not comply with legislative and regulatory requirements, (2) not cite appropriate legislative authority, or (3) include terms unacceptable or unnecessary for a federal agency. Formal policies and procedures for legal review of *all* bureau agreements are clearly needed. Although the bureau's July 1997 policy represents positive steps in the review and oversight of obligation agreements, the policy must be augmented with better review policies and procedures for all agreements, including criteria and thresholds outlining which bureau agreements must be reviewed by OGC. OGC has already established thresholds for legal review of National Marine Fisheries Service agreements.<sup>21</sup> The bureau should work with OGC to develop a similar policy and thresholds for legal review of its agreements. Agreements which OGC must review could include agreements above a certain dollar threshold, agreements that include irregular terms and conditions, or ones that involve a private or foreign party.

In addition to establishing criteria for legal review of documents, the bureau needs to better define and document the legal review process. Furthermore, since bureau and departmental personnel have expressed concerns about the length of legal review, the policy should state how much lead time is normally required to obtain legal review. The programs must then provide agreements in sufficient time for legal review to be completed before a project is expected to

---

<sup>21</sup>The new National Marine Fisheries Service guidelines, which are currently being revised by NMFS and OGC to address a number of concerns including those highlighted in our recent OIG reports, state that the Office of General Counsel will review (1) Economy Act agreements where \$100,000 or more is being transferred and (2) unfunded agreements with other federal agencies that are for a period of more than five years. In addition, if personal property is being transferred or loaned under an unfunded agreement, Office of General Counsel review must be obtained. Furthermore, all joint project agreements, regardless of funding, must continue to be cleared by the Office of General Counsel.

start. The bureau should also work with OGC to develop a mechanism for legal counsel to inform the programs about the status of legal review so that the programs can anticipate when the legal review will be completed.

---

First, OGC/Administration stated that our discussion of OGC's tracking system contains several inaccuracies and misleading statements with respect to OGC's performance of its responsibilities. OGC/Administration stated that the database is not used for tracking purposes, nor is it OGC's responsibility to track or manage Department agreements. We mentioned the difficulty of obtaining information from OGC's tracking system in order to show that it could not be used currently as a central source of information as to which bureau agreements had been reviewed by OGC.

Second, OGC/Administration asked that we delete from the report our suggestion that the bureau work with OGC to develop a mechanism for informing program officials about the status of legal review. OGC/Administration stated that it does have a system "to ensure that clients may know the status of the review of their agreements." Attorneys upon receiving an agreement for review have been directed to contact the client and inform him that they have been assigned to conduct the legal review of the agreement.

We suggested that the Bureau of the Census and OGC jointly develop a mechanism for keeping the bureau apprised of the status of legal review because some bureau and departmental personnel have mentioned difficulties in determining the contact or getting status information. Since we believe that the instruction to staff attorneys has been re-emphasized or reiterated recently, we applaud OGC/Administration for its efforts to improve customer service.

***B. Most agreements are not receiving procurement review***

As discussed in the previous chapter, we found that bureau offices rarely prepare determination and findings for obligation agreements. When determination and findings are prepared, they are not routinely being reviewed by a contracting officer. Contracting officers have the expertise and knowledge necessary to review determination and findings. Based on the July 1997 memorandum, the bureau's Acquisition Division was removed from reviewing obligation agreements to streamline the bureau's review process. Since July 1997, the Budget Division has been responsible for (1) certifying the availability of funds, (2) returning two original agreements to the originating division for signature and delivery to the other organization, (3) retaining one copy, and (4) forwarding a copy to finance to set up a pending file. We believe that the bureau unwisely removed the Acquisition Division (the chief procurement office) and its contracting officers from reviewing determination and findings.

Without contracting officials' review, obligation agreements may violate the *Federal Acquisition*

*Regulation*, which requires agencies to obtain goods or services from other agencies through Economy Act agreements. A determination and finding should be prepared to justify that the purchase is in the best interests of the government and that the supplies or services cannot be obtained as conveniently or economically from a private source. The *Federal Acquisition Regulation* requires a contracting officer or other official designated by the agency head to approve and sign the determination and finding.

The bureau should develop procedures to ensure that (1) the bureau uses a standard method of documenting and approving determination and findings and (2) a contracting officer reviews all Economy Act orders and D&Fs before an agreement is signed. Procedures should indicate that Economy Act orders and supporting D&Fs above a specific threshold must be reviewed by the department procurement authority, the Office of Acquisition Management, consistent with all forthcoming departmental guidance. In addition, for all bureau intra-agency Economy Act transfers, offices should be required to prepare justifications that support their determination that purchasing from a federal entity is cheaper or more convenient than purchasing from a commercial entity.<sup>22</sup> Bureau contracting officers who have training and experience in obtaining goods and services, should use these policies and procedures to conduct agreement reviews. Bureau offices, such as the decennial staff, that have their own procurement functions should have their contracting officers review agreements. For other bureau offices, Acquisition Division contracting officers should review and provide the necessary approval for Economy Act agreements.

---

OGC/Administration questioned the need to require determination and findings for intra-agency Economy Act transfers. Although the *Federal Acquisition Regulation* does not require a determination and finding for intra-agency Economy Act transfers, it does give the agencies the discretion to address such transfers in agency regulations. In order to ensure that Economy Act requirements are being met, due diligence would require that the bureau or unit ordering the goods or services justify that the order complies with the four conditions of the Economy Act. Otherwise, the Department cannot be assured that its agencies are getting the best value for the cost and are using Economy Act agreements for the right purposes. We feel that requiring justifications is an important and necessary step in the decision-making process when acquiring goods and services.

---

<sup>22</sup> Intra-agency transactions are to be addressed in agency regulations, [*Federal Acquisition Regulation* § 17.500(a)].

### III. Bureau Should Develop a Central Database to Inventory and Track Agreements

During our review, we found that the bureau lacks a central database or tracking system for all of its agreements. Currently, the bureau has separate financial systems for tracking reimbursable and obligation agreements, and the bureau's Policy Office uses a correspondence control system to track all agreements that involve data exchange and all agreements signed at the Deputy Director or Director level.

Although the bureau tracks reimbursable agreements, obligation agreements, and some agreements not involving the transfer of funds in separate databases, this method of tracking agreements is not easily sorted by relevant information including project title, parties, termination date, type of agreement, or an identifying number. A central database of agreements with relevant information would be a useful management and administrative tool. The Government Performance and Results Act requires federal agencies to describe coordination and planning with other agencies on shared or similar functions and programs. In July 1997, the House Science Committee criticized Commerce's strategic plan for failing to adequately discuss coordination of cross-cutting programs. The Department has since included more information about external program "linkages" in its strategic plan for 1997-2002. For each strategic theme (economic infrastructure, science/technology/information, and resource and asset management and stewardship), the Department describes several linkages with other federal and non-federal parties that support these strategic themes.

The bureau could use the database to provide input into the Economics and Statistics Administration's (the bureau's parent organization) and Commerce's strategic plans. Basic information, such as how many agreements exist, what agencies and other parties are involved, and total funding through agreements, could be used to develop the strategic plan linkages. From an administrative and management perspective, a central database of agreements would help bureau managers in assessing overall resource commitments and bureau program officials in administering and maintaining their agreements. By having relevant dates in the system, programs could easily identify which agreements are due for renewal, termination, or review. Also, programs could quickly respond to inquiries on particular agreements by accessing the system with an identifying number, project title, or contact name.

A central bureau database should include certain key elements, including project title, parties, termination date, review date, legal authority, funding information, and contact person or office. The database should also identify the type of agreement (i.e. agreements not involving the transfer of funds, reimbursable agreement, or obligation agreement). This system could also be used to establish a document numbering system, where each entry would be assigned a unique number, which would then be placed on the actual agreement and any related documents. The bureau could then better identify and track the physical documents. Given the large number of bureau agreements and their importance to achieving the bureau's mission, a comprehensive database of agreements with relevant information would help management and program officials control and maintain their agreements.

Concerning the need for better tracking of agreements, we have made recommendations to the Department in a separate report.<sup>23</sup> One of our recommendations is the establishment of a Department-wide database of agreements. We recommended that the Department determine whether (1) there should be one consolidated Department-wide system that each bureau can access to add, modify, or delete agreements; or (2) each bureau should maintain its own database that is compatible with other bureau systems. The bureau should closely coordinate with the Department to ensure that its agreements system is consistent and compatible with any forthcoming departmental policy.

---

The Bureau of the Census concurs with the recommendation to establish a centralized system to adequately inventory, track, and control the bureau's agreements. The bureau plans to work with the Department in developing the system.

---

<sup>23</sup> Final Inspection Report: *Office of the Secretary--Interagency and Other Special Agreements Require Better Management and Oversight*, IPE-10418, September 1998.



## **RECOMMENDATIONS**

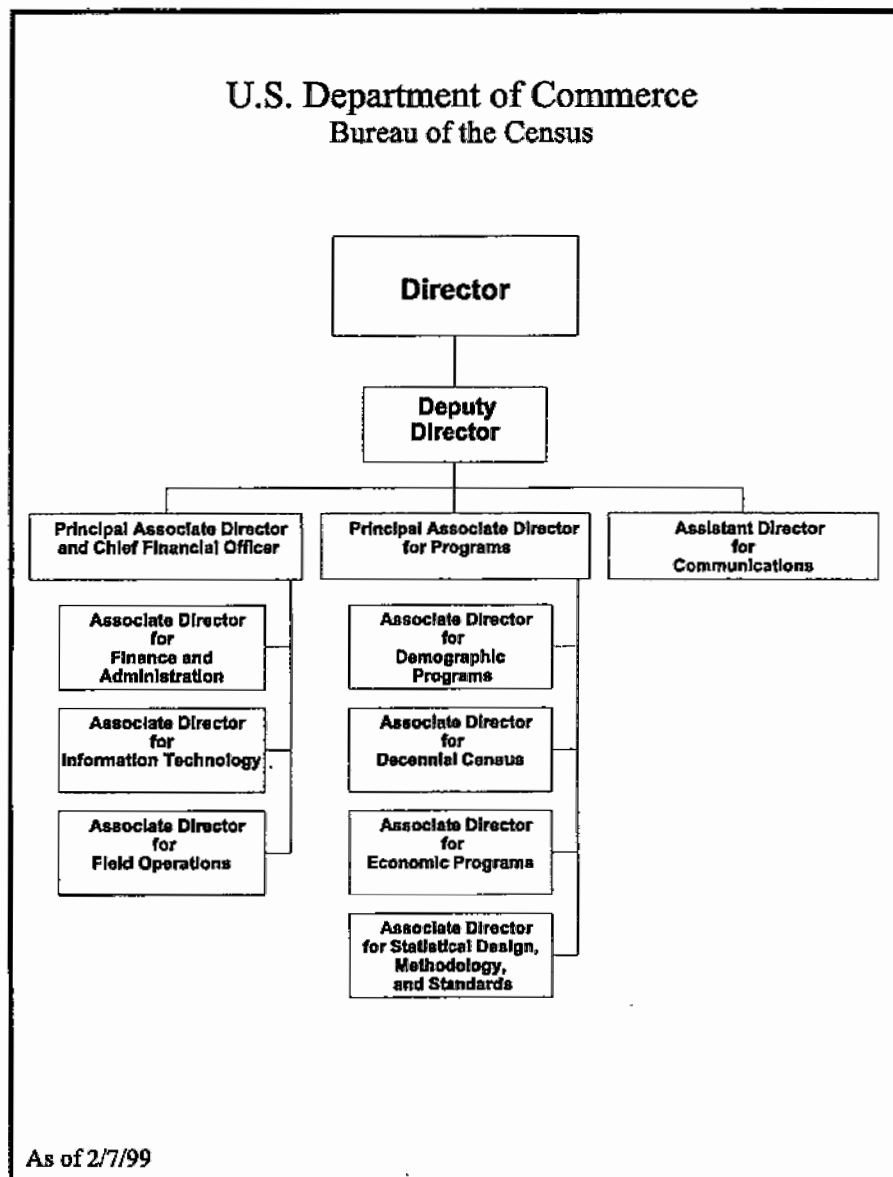
We recommend that the Director of the Bureau of the Census take the following actions:

1. Building on the policy for obligation agreements issued by the bureau's Budget Division in July 1997, develop a comprehensive set of guidelines for the preparation and review of all types of bureau agreements that is consistent with forthcoming departmental guidance. These guidelines should include:
  - standardized agreement definitions, steps for preparing agreements, and the provisions necessary for compliance, and at least the following requirements: full cost recovery (where applicable), equitable apportionment of costs for joint projects, citation of legal authorities, appropriate level of approval, applicable written justifications, inclusion of total project costs and detailed budget summaries, applicable justifications, and termination dates and/or review periods (see page 14).
  - guidance that requires program officials to notify other agencies of what terms are required in Bureau of the Census agreements and to modify or amend incomplete agreements (see page 14).
  - mechanisms that ensure bureau agreements are reviewed, and revised or renewed as appropriate, at least every three years (see page 14).
  - standard language or form agreements for use by the programs (see page 14).
  - reasonable criteria, established in conjunction with the Office of General Counsel, for which bureau agreements require legal review (see page 17).
  - a standard method of documenting and approving determination and findings and review of all Economy Act orders and D&Fs by an appropriate contracting officer before an agreement is signed (see page 19).
2. Distribute relevant information for preparing and processing agreements internally through the bureau's Intranet and at appropriate bureau management and administrative conferences. Any subsequent changes in federal, departmental, or bureau regulations or procedures and applicable laws should also be widely distributed (see page 14).
3. Provide training on how to properly prepare, process, and review agreements to all program and administrative staff responsible for agreements (see page 14).

4. Establish a centralized system to adequately inventory, track, and control Census's agreements. This system should be compatible with any Department-wide database for agreements (see page 21).

## APPENDIX A

### Bureau of the Census Organizational Chart



APPENDIX B – Bureau of the Census's Response to Draft Report



UNITED STATES DEPARTMENT OF COMMERCE  
Bureau of the Census  
Washington, D.C. 20233  
OFFICE OF THE DIRECTOR

March 26, 1999

MEMORANDUM FOR Jill Gross  
Acting Inspector General  
for Inspections and Program Evaluations

From: Nancy A. Potok *Nancy Potok*  
Principal Associate Director  
and Chief Financial Officer

Subject: Draft Inspection Report: Bureau of the Census  
Interagency Agreements Require Improvements  
(OPE-10523)

We are providing you with our response to the observations and recommendations in the draft inspection report. To begin, the Census Bureau has two general comments regarding the observations. They are:

1. Although reimbursable agreements were excluded from the scope of this inspection, there are references to those agreements throughout the report. We find this confusing, particularly where observations include reimbursable issues.
2. As noted in the report, the observations are based on a review of agreements that are now at least two years old. While the observations may accurately reflect the situation at the time of the inspection, the relatively new policies and procedures were not fully reflected in the inspection sample. Therefore, the observations may not be representative of the current situation.

Nevertheless, the Census Bureau recognizes the importance of having sound policies, procedures, and practices for the preparation, review, and management of agreements. Further, we acknowledge that improvements are necessary and concur with all of the recommendations. We plan to address each of the recommendations as follows:

2

1. **Building on the policy for obligation agreements issued by the Budget Division in July 1997, develop a comprehensive set of guidelines for the preparation and review of all types of bureau agreements that is consistent with forthcoming departmental guidance.**

The Census Bureau will proceed with revisions and enhancements to our current guidelines and update them to incorporate relevant departmental guidance when it becomes available.

2. **Distribute relevant information for preparing and processing agreements internally through the bureau's Intranet and at appropriate bureau management and administrative conferences. Any subsequent changes in federal, departmental, or bureau regulations or procedures and applicable laws should also be widely distributed.**

The Census Bureau will make use of various data dissemination methods to keep the appropriate parties informed of current information regarding the preparation and processing of agreements.

3. **Provide training on how to properly prepare, process, and review agreements to all program and administrative staff responsible for agreements.**

The Census Bureau will provide training to appropriate staff on how to properly prepare and process agreements once the guidance is finalized.

4. **Establish a centralized system to adequately inventory, track, and control Census's agreements. The system should be compatible with any Department-wide database for agreements.**

The Census Bureau looks forward to working with the Department to develop a centralized system to inventory, track, and control agreements.

Please address any questions you may have regarding our response to Michael S. McKay. You can reach him at (301) 457-3115.

cc: Barbara Fredericks (DOC/OIG)

APPENDIX C – Office of General Counsel/Administration's Response to Draft Report



UNITED STATES DEPARTMENT OF COMMERCE  
Office of the General Counsel  
Washington, D.C. 20230

MEMORANDUM FOR: Jill A. Gross  
Acting Assistant Inspector General for  
Inspections and Program Evaluations  
Office of the Inspector General

FROM: Brian D. DiGiacomo  
Chief, General Law Division

SUBJECT: Draft Inspection Report No. IPE-10523

*Michael D. DiGiacomo*  
for 3/31/99

Below we are providing our comments to Draft Inspection Report No. IPE-10423 on interagency and other special agreements of the Bureau of the Census (Census).<sup>1</sup> While we agree with most of your recommendations, there are some comments in the Census report with which we do not agree.

As with Draft Inspection Report No. IPE-10418,<sup>2</sup> No. 10775,<sup>3</sup> and No. 10417,<sup>4</sup> the Census report coincides with our own recent efforts with Census and other operating units to improve the preparation and review of agreements. We note the reviews did not reveal any case where the problems identified in the reports resulted in harm to Census or to the Department. This fact is significant as the Department attempts to balance the need for new requirements with the continued need for flexibility in carrying out the wide variety of activities and functions among all Department bureaus and offices.

We hope our comments will assist you in making your final report both accurate and effective, and we are glad to assist in improving policies and procedures concerning the review and management of agreements. We appreciate your office's efforts in attempting to attain that goal.

<sup>1</sup> Draft Report: *Bureau of the Census, Interagency Agreements Require Improvements*, (IPE-10523).

<sup>2</sup> Draft Report: *Office of the Secretary, Interagency and Other Special Agreements Require Better Management and Oversight* (IPE-10418).

<sup>3</sup> Draft Report: *NMFS's Interagency and Other Special Agreements Require Additional Improvements* (IPE-10775).

<sup>4</sup> Draft Report: *NWS Requires Better Management and Oversight of Interagency and Other Special Agreements* (IPE-10417).

Again, we would like to stress that the ultimate responsibility for compliance with all requirements will rest with the official who signs an agreement. Therefore, we believe the primary goal of any plan for improvement should be to ensure that managers fully understand both the requirements in the law and their responsibility. We will continue to work with your staff in this effort.

The following are our comments to parts of the Census draft report--these responses are intended to supplement our comments which we set forth in our responses to Draft Inspection Report No. IPE-10418, No. 10775, and No. 10417.

1. Necessity of budgets in agreements pursuant to the Department's Joint Project Authority, 15 U.S.C. § 1525.

Your report states that joint project agreements must have detailed budgets in order to determine whether costs of a project have been equitably apportioned. See p. 12. While it may be desirable to have budgets attached showing each party's contribution, it is not legally necessary to have detailed budgets; the law only requires that the costs be equitably apportioned.

The OIG should be aware that clients working with proposed joint project partners have informed us that in certain instances, if they were to ask for a detailed budget from the proposed partner, the proposed partner would withdraw its offer to commit resources to a matter deemed necessary and essential to the Department. In other words, requiring this extra administrative work (which has at least on one occasion been described to us as "bureaucratic red tape") from a proposed partner, that is trying to assist the Department, would be a "deal breaker."

We do support the sound managerial preference for budgets. In fact, they assist us in determining the parties equitable apportionment of costs. However, detailed budgets are not required in all instances to make the determination that costs have been equitably apportioned. Therefore, we would request that your report be revised to allow flexibility in this area; an extremely high level of detail should not be an absolute requirement in guidelines that are developed.

2. Requirement of a termination date or specific date for review. The report states that all agreements should have a specific termination date or a specific date at which time the parties should review the agreement. See p. 13. We disagree with this statement because we have been made aware that there are times when such a term may run counter to the Department's interests and it is not legally required.

We are aware of instances where an operating unit of the Department will have negotiated very favorable terms in an agreement, and will want to have those terms to continue for as long as possible. Having a requirement that the agreement

terminate at a specific date or a requirement that the parties review the agreement a specific date may effectively "open up" the terms of the agreement the operating unit would rather not have disturbed, *i.e.*, including such a term can cause an agreement to be renegotiated with worse terms being subsequently imposed on the Department. This is not a theoretical concern, but is one that clients have raised to our office.

Accordingly, while it may be preferable to have termination dates in an agreement, it should not, in our opinion, be an absolute requirement in any guidelines issued. We would request that your report be modified to reflect that there should be some flexibility around this issue based on the needs and interests of the Department and stress that operating units should develop regular processes for internal review, and that the lack of any termination date or clause in the agreement must be thoroughly justified.

3. Confusion Regarding the Term "Memorandum of Understanding/Agreement" (MOU/A). Our office has learned that there is a lot of confusion as to what a "Memorandum of Understanding/Agreement" is. The current draft of your report also reflects confusion regarding this term. The same problem exists with regard to the term "unfunded agreement."

On p. 18 of your report you state the Census should have a database that should "identify the type of agreement (*i.e.*, memoranda of understanding or agreement, reimbursable agreement, or obligation agreement)." This statement is legally inaccurate. The term "Memorandum of Understanding/Agreement" is a generic term that means nothing more than "agreement." A memorandum of understanding or agreement may be used for reimbursable work and to acquire work from others.

Unless changed, we fear your report will continue the confusion which already exists at the Department regarding what an MOU/A is. This confusion has consequences in that employees often treat a document based solely on what it is called. In order to keep better track of agreements *and* to make subsequent IG inspections more meaningful, this confusion needs to be corrected. Your report can serve to help clear up this problem. Therefore, we would ask that you revise the report with this problem in mind.

We do, however, agree that Census guidelines should be revised to reflect more clearly (1) which agreements need legal review and (2) the fact that it is the responsibility of our office to provide clearance of such agreements.

Furthermore, the guidelines should be revised to "clear up" the concept of "unfunded agreements" which we reference in our responses to Draft Inspection



Report No. IPE-10418 and No. 10417. We note that on p. 14 & p. 18, you seem to use the term "unfunded agreement" to mean those agreements used to coordinate complementary programs, e.g., joint project agreements. This is an entirely inaccurate use of the term and reflects the confusion already existing in other parts of the Department. As stated above with reference to the term "Memorandum of Understanding/Agreement," unless changed, we fear your report will continue the confusion which already exists at the Department regarding what an unfunded agreement is and will perpetuate unwanted consequences. Therefore, we would ask that you revise the report with this problem in mind.

4. Confusion Regarding the Intended Uses of Form BC-505A. On p. 14 of your report, you state that "Form BC-505A needs revision for establishing obligation agreements using the Economy Act because the form does not include all required information for obligation agreements (e.g., determination and findings or contracting officer's signature when necessary)."

The back of the form, however, indicates that the form was never intended to be used for Economy Act transactions; it is to be used only for agreements where user fees are charged pursuant to 13 U.S.C. § 8(b) and 15 U.S.C. § 1525's authority to perform special work or service on a cost basis. Thus, your conclusion that the form should be revised for use for Economy Act transactions is inaccurate, and you should, therefore, revise your suggestions regarding that form.

5. The Discussion of OGC's Database Should Be Omitted. On pp. 15-16, there is a lengthy discussion of OGC's tracking system. As we requested in our response to IPE No. 10418, this section should be deleted because it contains several inaccuracies and is misleading with respect to OGC's performance of our responsibilities, in particular with respect to the purposes for which the Office of the Assistance General Counsel for Administration uses its database. It is not OGC's function to track or manage Department agreements. Therefore, this discussion is not relevant to your report and should be deleted.
6. OGC Has in Place Processes to Inform Programs about the Status of Legal Review of An Agreement. On pp. 16-17 of your report, you state that Census "should also work with OGC to develop a mechanism for legal counsel to inform the programs about the status of legal review so that the programs can anticipate when the legal review [of an agreement] will be completed."

This sentence should be deleted from your report. As we have described in our response to IPE No. 10418, our office has a system to ensure that clients may know the status of the review of their agreements. Staff attorneys have been instructed to contact clients as soon as they receive the client's agreement and to inform the client that he or she is the person who will be conducting the review.

Thus, if a client wishes to question the status of the review, he or she may contact that attorney by telephone, E-mail, or personal visit and ask the attorney about the agreement's status. Even if one could be developed, a supposition which we question, there is no need for a "mechanical" system that would advise clients of review status when inexpensive and already available methods of communication are available to answer any questions a client may have.

7. **Requirement for Formal Procedures to Notify Other Agencies of Census' Agreement Requirement Should be Deleted.** On p. 13 of your report, you state that guidelines should include "formal procedures to notify other agencies of what terms are required in Bureau of the Census agreements and to modify or amend incomplete agreements . . . ."

We question this statement because it is difficult, if not impossible, for us to imagine the contents of the formal procedures you are requiring Census to write. If you keep this requirement in your report, we would request that you explain the elements which you think should be part of such formal procedures. We note, generally, that informing another party of the terms you require to be in an agreement is merely part of the process of negotiating an agreement. Similarly, if Census determines that an agreement must be modified or amended because it is incomplete, the general practice would be to bring this matter to the other party's attention and have the agreement modified or completed. We are unclear why there should be formal procedures for these concerns that are normally matters that are informally handled during the course of negotiation.

8. **Requirement for Written Justifications that Support Determinations that Purchasing from a Federal Entity is Cheaper or More Convenient than Purchasing from a Commercial Entity.** On p. 17 of your report, you state that "for all bureau intra-agency Economy Act transfers, offices should be required to prepare justifications that support their determination that purchasing from a federal entity is cheaper or more convenient than purchasing from a commercial entity."

This requirement is beyond what is required by law or regulation. Therefore, while it may be a preferred practice management practice to prepare such a written document, your report should explain why the OIG should make this an absolute requirement when such a document has not been required pursuant to the *Federal Acquisition Regulations*.



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

MAR 31 1999

MEMORANDUM FOR: Dr. D. James Baker  
Under Secretary for Oceans and Atmosphere

FROM: Johnnie E. Frazier *Johnnie Frazier*  
Acting Inspector General

SUBJECT: Final Report: *NWS Requires Better Management and Oversight of Interagency and Other Special Agreements (IPE-10417)*

As a follow-up to our February 12, 1999 draft report, this is our final report on our inspection of the National Weather Service's (NWS) interagency and other special agreements. The report includes comments from your written response to the draft report. A copy of your entire response is included as an appendix to the report.

This report conveys observations and recommendations that we believe will improve NWS's ability to prepare, review, and maintain agreements in accordance with federal, departmental, and agency guidance. We note again that we are pleased that NOAA is also planning to develop NOAA-wide guidelines for the preparation and review of interagency agreements. This should be a big step forward.

Please provide your action plan addressing the recommendations in our report within 60 calendar days. We appreciate the cooperation and courtesies extended by your staff during our evaluation. If you have any questions or comments about our report or the requested action plan, please contact me on (202) 482-4661.

Attachment

cc: Linda Bilmes, Acting Chief Financial Officer and Assistant Secretary for Administration  
John J. Kelly, Jr., Assistant Administrator for Weather Services



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

MAR 31 1999

MEMORANDUM FOR: Barbara S. Fredericks  
Assistant General Counsel for Administration

FROM: Johnnie E. Frazier  
Acting Inspector General

SUBJECT: Final Report: *NWS Requires Better Management and Oversight of Interagency and Other Special Agreements* (IPE-10417)

As a follow-up to our February 12, 1999 draft report, this is our final report on our inspection of the National Weather Service's (NWS) interagency and other special agreements. The report includes comments from your written response to the draft report. A copy of your entire response is included as an appendix to the report.

This report conveys observations and recommendations that we believe will improve NWS's ability to prepare, review, and maintain agreements in accordance with federal, departmental, and agency guidance. We note again that we are pleased that NOAA is also planning to develop NOAA-wide guidelines for the preparation and review of interagency agreements. This should be a big step forward.

We are sending this final report to you because of your office's involvement in the review of NWS's interagency agreements. We draw your attention to our discussion and recommendation regarding the need for NWS to work closely with the Office of General Counsel to obtain legal review of NWS agreements.

If you have any questions or comments about our report, please contact me on (202) 482-4661.

Attachment

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	1
BACKGROUND .....	4
OBSERVATIONS AND CONCLUSIONS .....	8
I.    NWS Agreements Are Appropriate Funding Mechanisms and Support Its Mission .....	8
II.   NWS Needs to Improve Its Process For Preparing Agreements .....	9
A.   Some NWS agreements do not cite legal and/or funding authority .....	9
B.   Sole source justification for contracts are incomplete .....	12
C.   Some NWS agreements are invalid because they lack authorized signatures .....	13
D.   Duration not specified on some NWS agreements .....	13
E.   Policies and procedures for preparing agreements should be improved ..	14
III.  Oversight Process for Reviewing Agreements Needs Improvement .....	19
A.   NWS agreements do not always receive consistent and appropriate review .....	19
B.   Contracting officers do not regularly review and approve agreements ..	19
C.   NWS agreements do not always receive appropriate legal review .....	21
D.   Periodic evaluation of agreements should be formalized .....	24
IV.   Financial Management of Agreements Needs Attention .....	26
A.   NWS does not always recover or properly apportion full costs .....	26
B.   NWS did not properly bill for some agreements .....	29
V.    A Database is Needed to Inventory and Track Agreements .....	30
RECOMMENDATIONS .....	33

APPENDICES

A.	Commerce, NOAA, and NWS Current Agreement Guidelines . . . . .	35
B.	National Oceanic and Atmospheric Administration's Response to Report . . . .	37
C.	Office of General Counsel/Administration's Response to Report . . . . .	41

## EXECUTIVE SUMMARY

Interagency and other special agreements are mechanisms for federal agencies to define terms for performing work for others (reimbursable agreements), acquiring work from others (obligation agreements), or coordinating complementary programs without the transfer of funds. These agreements can be between Commerce Department entities; or between one Commerce unit and another federal agency, a state or local government agency, a university or other educational institution, a not-for-profit organization, or a private party. They involve a significant amount of federal resources, but are not subject to the same controls as traditional procurement contracts, grants, or cooperative agreements.

The National Oceanic and Atmospheric Administration's National Weather Service (NWS) consists of 20 program offices that support the agency's mission of protecting human lives and property from severe storms by issuing weather and flood warnings, public forecasts, and advisories for the United States, its territories, adjacent waters, and ocean areas. To accomplish their mission, NWS program offices often undertake special projects, reimbursable activities, and programmatic efforts with other governmental and non-governmental entities.

This is one report in a series being issued as part of the Office of Inspector General's Department-wide review of agreements. To perform our inspection, we focused on assessing the effectiveness and efficiency of NWS's process for entering into agreements with departmental offices and outside parties. Based on our review of a sample of NWS agreements, we found that NWS does appropriately use agreements to support its mission. However, improvements are needed in the guidelines that direct the preparation and review of agreements as well as in the cost recovery and billing systems used for the agreements. Specifically, during our review of NWS agreements, we made the following observations:

- ▶ **NWS agreements are appropriate funding mechanisms and support its mission.** We found that NWS agreements supported NWS's specific mandates, were appropriate funding mechanisms, and did not constitute a substantial proportion of NWS's overall budgetary resources (see page 8).
- ▶ **NWS needs to improve its process, policies and guidance for preparing agreements.** We found some NWS agreements are not always properly prepared including uncited programmatic or funding authorities, inadequate sole source justification, missing or unauthorized signatures, and agreements that had no specified duration. In addition, NWS needs to improve its administrative guidance for agreements. Existing guidelines, policies and procedures are (1) limited in their usefulness for preparing agreements, (2) are not up-to-date, and (3) are not centrally located for easy reference. As a result, NWS lacks a complete, well-documented system to guide its offices in developing agreements that are

consistently and properly prepared and comply with specific agreement authorities (see page 9).

- ▶ **NWS process for reviewing agreements needs improvement.** First, NWS agreements are not consistently reviewed during preparation. Second, NWS' review process does not require the preparation and review of written justifications as required by the *Federal Acquisition Regulation*. Third, NWS has no formal criteria for the review of agreements by the Office of General Counsel and, as a result, a relatively small number of NWS agreements receive proper legal review. Fourth, existing policies on the need for periodic review to determine whether an agreement should be renewed, amended, or canceled are not consistent or adequate (see page 19).
- ▶ **NWS's financial management of agreements needs attention.** We found financial problems in some NWS agreements, including unrecovered costs for Economy Act agreements, inequitable apportionment of costs for joint projects, and improper billing (see page 26).
- ▶ **A database is needed to inventory and track agreements.** NWS has no comprehensive database or tracking system for NWS agreements. Any existing lists are incomplete and are not easily sorted by relevant type of information, such as legal authority or type of agreement (see page 30).

On page 33, we offer complete recommendations to address our concerns.

---

In their responses to our draft report, the Chief Financial Officer and Administrative Officer of NOAA and the Chief of the General Law Division of the Office of Assistant General Counsel for Administration generally agreed that the National Weather Service's agreements require better management and oversight, including better written guidance on how agreements should be drafted and reviewed. They also suggested some changes to the body of the report. We have taken these comments into consideration and have made changes as appropriate. A copy of both responses are included in their entirety as appendices to this report.



## INTRODUCTION

The Office of Inspector General conducted an inspection of the National Weather Service's (NWS) oversight and management of special agreements, including interagency agreements, memoranda of understanding, and memoranda of agreement effective in fiscal year 1997. We conducted the inspection from October 14, 1997, through January 30, 1998, in accordance with the Inspector General Act of 1978, as amended, and the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. At the conclusion of the inspection, we discussed our observations and recommendations with NWS's Chief Financial Officer.

Inspections are special reviews that the OIG undertakes to provide agency managers with timely information about operations, including current and foreseeable problems. Inspections are also done to detect and prevent fraud, waste, and abuse and to encourage effective, efficient, and economical operations. By highlighting problems, the OIG intends to help managers move quickly to address those identified during the inspection and avoid their recurrence in the future. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere.

## PURPOSE AND SCOPE

Interagency and other special agreements are mechanisms for federal agencies to define terms for performing work for others (reimbursable agreements), acquiring work from others (obligation agreements), or coordinating complementary programs without the transfer of funds. These agreements can be between Commerce Department entities; or between one Commerce unit and another federal agency, a state or local government agency, a university or other educational institution, a not-for-profit organization, or a private party. They involve a significant amount of federal resources, but are not subject to the same controls as traditional procurement contracts, grants, or cooperative agreements.

We defined interagency and other special agreements as those agreements that are *not* grants, cooperative agreements, or traditional procurement contracts.<sup>1</sup> For simplicity, we use the term "agreement" to refer to the various types of interagency or other special agreements within our

---

<sup>1</sup>The Federal Grant and Cooperative Agreement Act of 1978 defines these types of agreements.

**Procurement contracts**—legal instruments "reflecting a relationship between the United States Government and a State, a local government, or other [non-federal] recipient when . . . the principal purpose . . . is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government." 31 U.S.C. § 6303. **Grants**—legal instruments used when "(1) the principal purpose of the relationship is to transfer a thing of value to a State or local government or other recipient to carry out a public purpose of support or stimulation authorized by a law of the United States . . . and (2) substantial involvement is not expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement." 31 U.S.C. § 6304. **Cooperative agreements**—differ from grants only in that they are to be used when substantial involvement by the executive agency is expected. 31 U.S.C. § 6305.

scope. Agreements can include memoranda of agreement, memoranda of understanding, purchase orders that document both parties' acceptance, or any other document that details the terms of an agreement and the parties' acceptance. Agreements can transfer funds from one party to the other, bind one or both parties to commit funds or resources to a project, or not involve any resources.

In 1994, we examined agreements for reimbursable work performed by the National Telecommunications and Information Administration, finding several problems, including more staff than necessary for its mission because of its over-reliance on reimbursable funding.<sup>2</sup> That same year we issued letter reports to the International Trade Administration and the National Oceanic and Atmospheric Administration on their respective agreements. Our report to the International Trade Administration cited the fact that it had not provided a complete and timely accounting of all agreement costs and expenditures to other parties to its agreements.<sup>3</sup> In our report to the NOAA Comptroller, we expressed our concerns about NOAA's ability to produce a concise, credible inventory of interagency agreements.<sup>4</sup> Then, in 1995 and 1996, respectively, the OIG reported that NOAA's National Marine Fisheries Service and Office of Oceanic and Atmospheric Research consistently undercharged for services they provided under agreements.<sup>5</sup> Due in part to the concerns raised in these reports, we began our current Department-wide review of interagency and other special agreements.

This is one report in a series being issued as part of our Department-wide review of agreements. The purpose of our inspection was to assess the effectiveness and efficiency of NWS's processes for undertaking agreements with other departmental offices and outside parties. The scope of our inspection included determining (1) the appropriateness and advisability of NWS agreements as funding mechanisms for specific projects, (2) the extent to which NWS offices are supported through and rely on these agreements, (3) the relevance of agreements to departmental and NWS goals and objectives, and (4) whether NWS agreements have possibly circumvented procurement or financial assistance regulations. In addition, we evaluated NWS's financial, managerial, and programmatic oversight of agreements.

---

<sup>2</sup>NTIA Interagency Agreements, Institute of Telecommunication Sciences (IRM-5723, January 1994).

<sup>3</sup>Interagency Agreements Conducted by the International Trade Administration (IRM-6290, September 1994).

<sup>4</sup>Preliminary Findings Regarding Inspection Work on NOAA Interagency Agreements (IRM-6291, September 1994).

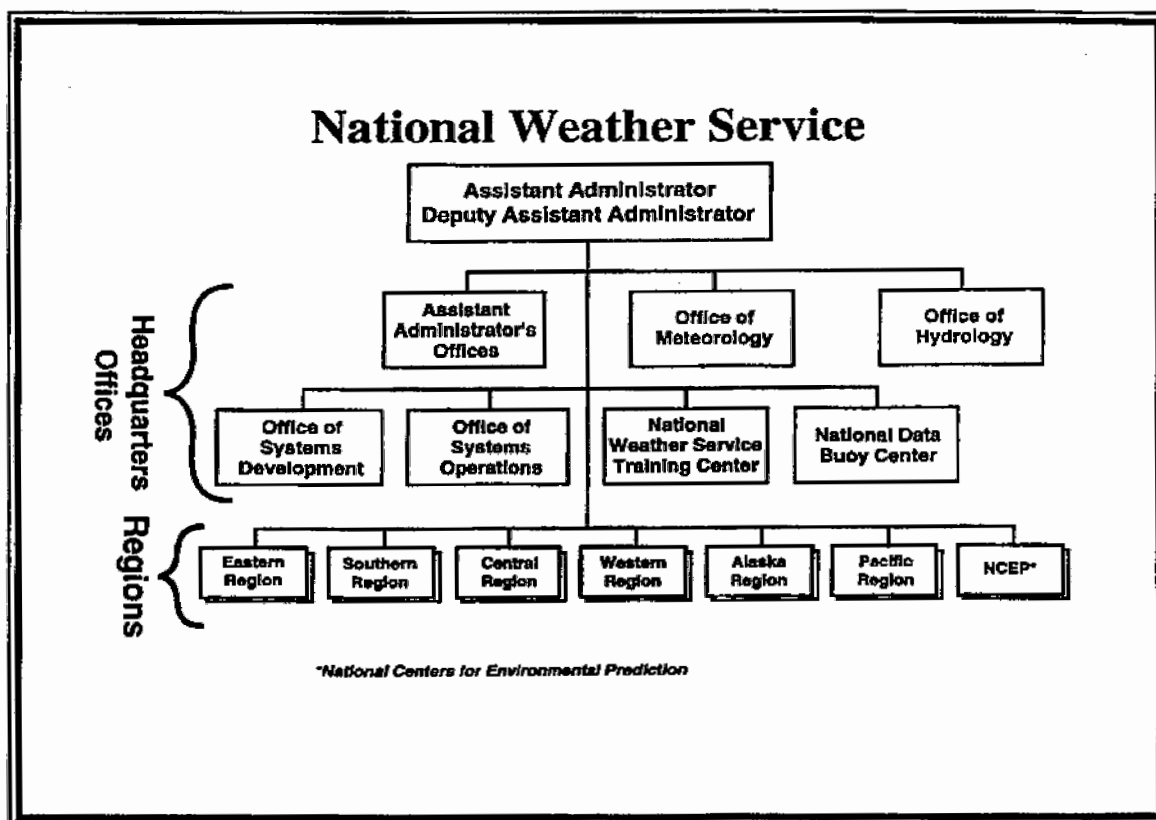
<sup>5</sup>NMFS Cost Recovery for Sponsored Research Needs Improvement (STL-6528, May 1995); OAR's Cost Recovery for Sponsored Research Needs Improvement (STL-7658, June 1996).

We reviewed the relevant departmental and bureau policies and procedures pertaining to these agreements, including Department Administrative Orders, NOAA Administrative Orders, the *Department of Commerce Accounting Principles and Standards Handbook*, the *NOAA Budget Handbook*, and the *NOAA Finance Handbook*. With regard to legal authorities, we reviewed the Economy Act, the Joint Project Authority, and the Intergovernmental Cooperation Act. We also examined NWS's list of agreements provided by each of its offices to NOAA's Office of Finance and Administration. To evaluate the NWS agreement process, we compiled an inventory of NWS's agreements effective in fiscal year 1997. Based on the information provided by NWS, we determined that there were 454 agreements. Of these, we selected all obligation agreements over \$100,000, and some under \$100,000, and a number of agreements not involving the transfer of funds, covering a wide range of NWS offices. We then obtained copies of the resulting sample of 62 agreements and performed an in-depth review of them. In addition, we conducted telephone and/or personal interviews with relevant NWS staff members to further evaluate specific agreements.

## BACKGROUND

NWS consists of 20 discrete program offices that support the agency's mission of protecting human lives and property from severe storms by issuing weather and flood watches and warnings, public forecasts, and advisories for the United States, its territories, adjacent waters, and ocean areas. NWS's organizational structure and program offices are shown in Figure 1. To accomplish their missions, NWS offices often undertake special projects, reimbursable activities, and programmatic efforts with other governmental and non-governmental entities and agreements establish the terms of those relationships.

Figure 1



DRAFT as of 12/18/98

NWS had approximately 454 agreements in effect during fiscal year 1997. As shown in Figure 2, in accordance with the criteria discussed on page 3, we selected 62 of those agreements and performed an in-depth review. The 62 NWS agreements that we selected involved 14 of NWS's 20 offices.

Figure 2

<b>National Weather Service Agreements Reviewed by OIG <u>Fiscal Year 1997</u></b>	
<u>Office</u>	<u>Number of Agreements</u>
Office of Systems Operations	14
National Data Buoy Center	7
Eastern Region	7
Office of Hydrology	6
Western Region	6
Pacific Region	5
Office of Meteorology	4
National Centers for Environmental Prediction	4
Southern Region	3
International Activities Office	2
National Implementation Staff Office	1
OFCM	1
Alaska Region	1
Central Region	1
Office of Systems Development	0
NWS Training Center	0
Industrial Meteorology Staff	0
Management and Budget Office	0
ASOS Program Office	0
AWIPS Program Office	0
Total Number Reviewed	<u>62</u>

The 62 agreements we reviewed (1) nearly all involved external agencies, such as the Federal Aviation Administration or the Department of Defense, rather than other Commerce agencies, (2) primarily were agreements to receive funding from another agency (a reimbursable) for information and services, rather than to provide funding to another agency for information or

services (an obligation), (3) largely lacked any citation of legal authority, and (4) averaged approximately \$367,000 in value.

NWS reimbursable agreements represented funding for services provided to other federal agencies, such as weather systems support and implementation, weather prediction studies, and training. NWS obligation agreements included obtaining telecommunications services for the Next Generation Radar (NEXRAD) program, and obtaining personnel services from the U.S. Coast Guard weather data systems support. NWS also had agreements not involving the transfer of funds and joint project agreements. The agreements not involving the transfer of funds--where NWS did not pay or receive funds, but may have committed resources to the project--varied in purpose and included (1) cooperative efforts to establish joint research activities, (2) the use of the NOAA weather radio transmitter, and (3) the implementation of local flash flood warning systems. The joint projects also varied in purpose, including jointly developed training courses with the Federal Emergency Management Agency, and the allocation of the NEXRAD program costs with the Department of Defense and the Department of Transportation. Figure 3 outlines the NWS agreements we reviewed by source, type, legal authority, and average dollar amount.

Figure 3

<b>National Weather Service Agreements</b> <b>Source, Type, Legal Authority, and Average Dollar Amount</b> <b><u>Fiscal Year 1997</u></b>	
<b>Agreements by Source</b>	<b><u>Number of Agreements</u></b>
Total	454
Number reviewed	62
External agencies	60
Internal agencies	2
<b>Agreements by Type</b>	<b><u>Number of Agreements</u></b>
Total	454
Number reviewed	62
Reimbursables	29
Agreements not involving the transfer of funds	19
Obligations	9
Joint project	5
<b>Agreements by Legal Authority</b>	<b><u>Number of Agreements</u></b>
Total	454
Number reviewed	62
No authority cited	38
Economy Act (31 U.S.C. 1535)	11
Other authority cited	8
Joint Project Authority (15 U.S.C. 1525)	5
<b>Agreements by Average Dollar Amount</b>	
Total (454 agreements)	\$50,000
Number reviewed (62 agreements)	\$367,000
Number reviewed - funded only (43 agreements)	\$529,000
Joint projects (5 agreements)	\$1,330,000
Obligations (9 agreements)	\$481,000
Reimbursables (29 agreements)	\$406,000
Agreements not involving the transfer of funds (19 agreements)	\$0

## OBSERVATIONS AND CONCLUSIONS

### I. NWS Agreements Are Appropriate Funding Mechanisms and Support Its Mission

After reviewing 62 NWS agreements, we found that they (1) were appropriate funding mechanisms for NWS projects, (2) supported NWS's purpose of receiving and providing mission-related information and services, and (3) did not provide a substantial portion of the resources of NWS offices.

The agreements we reviewed did cover activities that should be funded by an agreement rather than a traditional procurement contract, grant, or cooperative agreement. Based on our checklist of questions, we determined that NWS offices did not use agreements to circumvent guidelines or requirements for procurements or financial assistance. Furthermore, all of the 62 agreements were being funded using appropriate legal instruments, although in 38 of the agreements the proper authorities were not explicitly cited in the agreement. Table 1 on page 11 outlines appropriate authorities to be used in agreements.

NWS offices used the agreements we reviewed to support their specific mandates, by providing mission-related services to Commerce offices or other agencies and also receiving services needed to perform their mission. We found that NWS offices provide weather systems support and implementation, weather prediction studies, training, and other services to various federal agencies. NWS offices also use agreements to obtain telecommunications services, personnel support for weather data systems, and other purposes. Without these services, NWS offices could not operate effectively. In cases where the agreement provides the most cost-effective method of obtaining services, the funds saved can be redirected to other program functions. For example, NWS has an agreement with the Coast Guard that allows NWS to use Coast Guard vessels for the transport, installation, extraction, and maintenance of deep water data buoys. Because NWS personnel usually ride on existing Coast Guard cruises for free, NWS saves the costs that would normally be paid to a private vessel specially rigged to perform these functions. Through this arrangement, NWS supports more buoys in more locations than would likely be possible by obtaining the services through contracts.

Finally, NWS's total fiscal year 1997 reimbursables of approximately \$15.0 million represented just 2 percent of its entire fiscal year 1997 budget of over \$732.0 million. As a result, NWS did not rely on reimbursable agreements for a substantial portion of its resources.



## II. NWS Needs to Improve Its Process For Preparing Agreements

We found that many NWS agreements lacked necessary provisions including citations to legal authority, inadequate sole source justification, signatures of authorized officials, and specified duration. These deficiencies are a direct consequence of problems in NWS's entire agreement process and resulted in the loss of funds received, increased potential for invalid agreements, and increased risk to NWS resources and credibility.

### A. Some NWS agreements do not cite legal and/or funding authority

We found that 38 of the 62 NWS agreements we reviewed failed to cite any legal and/or funding authorities. The *NOAA Budget Handbook* and *NOAA Administrative Order 201-105* provide model agreements that require citation to applicable legal authorities that are used as the basis for agreements. Legal authorities typically cited in agreements include: Economy Act of 1932 (31 U.S.C. §§ 1535-1536), Joint Project Authority (15 U.S.C. §§ 1525-1526), Intergovernmental Cooperation Act (31 U.S.C. § 6505), Federal Technology Transfer Act of 1986 (15 U.S.C. §§ 3710a-3710d), and general user fee authority under 31 U.S.C. § 9701. (See Table 1 on page 11 for a description of these authorities.) Program authority may also exist as a result of congressional action. For example, specific authority for another federal agency to transfer funds to NOAA may be contained in program statutes, such as the Clean Water Act.

Citation of proper legal authority is important because the type of authority supporting a particular agreement affects the treatment of funds transferred under the agreement, including the timing and disposition of receipts. For example, the Economy Act requires that all payments for work or services performed be deposited to the appropriation or fund against which the charges have been made. Under the Joint Project Authority, all payments are deposited into a separate account that may be used to directly pay the costs of work or services performed, to repay advances, or to refund excess sums when necessary. All receipts for furnishing specialized or technical services authorized under the Intergovernmental Cooperation Act may be deposited in the appropriation or funds from which the cost of providing such services has been paid or is to be charged. In contrast, fees collected as user fees must be returned to the U.S. Treasury in full unless existing statutes specifically provide otherwise. Without an accurate citation, NWS cannot be certain that it is properly depositing and handling funds associated with agreements.

The type of legal authority used also affects the period of availability for funds transferred under an agreement. For Economy Act agreements, the period of availability of funds transferred may not exceed the period of availability of the source appropriation. Accordingly, one-year funds transferred by the requesting agency must be returned at the end of that fiscal year and deobligated by that agency, to the extent that the performing agency has not performed or incurred valid obligations under the agreement. When the agreement is based on some statutory authority other than the Economy Act, the funds will remain payable in full from the

appropriation initially charged, regardless of when performance occurs. The funds are treated the same as contractual obligations, subject, of course, to the "*bona fide* needs" rule<sup>6</sup> and to any restrictions in the legislation authorizing the agreement. Therefore, it is necessary to determine the correct statutory authority for any agreement, in order to apply the proper obligational principles.

The current practice of not directly citing a legal authority in all agreements is inappropriate. New departmental, NOAA, and NWS guidance should address which legal authorities NWS offices may use for agreements. Table 2 outlines the key legal authorities used to support interagency agreements that are available to NWS and other federal agencies.

---

<sup>6</sup>The *bona fide* needs rule states that a fiscal year appropriation may be obligated only to meet a legitimate, or *bona fide*, need arising in, or in some cases arising prior to but continuing to exist in, the fiscal year for which the appropriation is made.

**Table 1: Summary of Key Legal Authorities and Criteria**

Legal Authority	Applicable Criteria
Economy Act of 1932 (31 U.S.C. § 1535-1536)	a. Other party to the agreement is another government agency.
	b. Funds are available.
	c. The head of the ordering agency decides the order is in the best interest of the government.
	d. The agency filling the order is able to provide the goods or services.
	e. The head of the ordering agency decides whether or not the ordered goods can be provided as conveniently or cheaply by a commercial enterprise.
Joint project authority and User fee authority (15 U.S.C. § 1525-1526)	a. Other participants are eligible entities, including non-profit organizations, research organizations, or public organizations or agencies.
	b. Matters are of mutual interest.
	c. The total costs (sum of costs for all participants in the joint project) for such projects must be apportioned equitably.
	d. Joint projects may be performed only if (1) the project cannot be done at all or as effectively without the participation of all parties to the project and (2) the project is essential to the furtherance of a departmental program.
Intergovernmental Cooperation Act (31 U.S.C. § 6505)	a. Agencies may provide specialized or technical services for state or local governments that the agency is especially competent and authorized by law to provide.
	b. The services must be consistent with and further the government's policy of relying on the private enterprise system to provide services reasonably and quickly available through ordinary business channels.
	c. Services may be provided only when there is a written request for those services made by the state or local government. The requestor must also pay all identifiable costs incurred by the agency in rendering the service.

Legal Authority	Applicable Criteria
General user fee authority (OMB Circular A-25 and 31 U.S.C. § 9701)	a. Agencies may impose a fee for an activity that conveys special benefits to its recipient(s) beyond those accruing to the general public.
Federal Technology Transfer Act (15 U.S.C. § 3710a-3710d)	a. Agency program missions shall be advanced. b. Special consideration shall be given to small businesses and to businesses that agree to manufacture any products in the United States.

**B. Sole source justification for contracts are incomplete**

An agreement between NWS and the Mexican Comision Nacional del Agua (CNA) had insufficient Justification for Other than Full and Open Competition (JOFOC) for NWS's award of four sole-source contracts with other entities for technical assistance and management services under this agreement. Two of these sole source contracts were for project management services with the same person for \$24,500 in the first year and \$66,985 in the second year. The other two sole source contracts were with two different parties for technical assistance for \$33,496 and \$27,973, respectively.

We found three specific deficiencies. First, NOAA's Systems Acquisitions Office (SAO) did not prepare an individual JOFOC for each of these four sole-source contracts, as required by the *Federal Acquisition Regulation* (FAR), Part 6.303. Second, SAO did not announce the proposals in the *Commerce Business Daily*, as required by the FAR, Parts 13.106 and 5.207. Third, SAO did not competitively bid one of these sole-source contracts for work in 1997, as required by FAR, Parts 6 and 13. The contracting officer in charge of these four contracts stated that the FAR is not relevant to these contracts because the funding is reimbursed by CNA and not appropriated.

However, the FAR clearly requires the preparation of a JOFOC and advertising in the *Commerce Business Daily* for all sole source contracts over \$25,000. Regardless of the funding source, we believe that SAO should adhere to the FAR requirements for contracts entered into under reimbursable agreements, including preparing JOFOCs and advertising all sole-source contracts in the *Commerce Business Daily*. To do otherwise would promote a dual procurement process that may lead to waste.

In response to our draft report, the Office of General Counsel/Administration recommended that we 1) delete all portions of the report related to contracts because they are not the subject of the report, and 2) clarify the first recommendation because the term "reimbursable agreement" is too broad, and it may be misconstrued.

First, because our review covered all aspects of interagency and other special agreements, findings regarding traditional procurement contracts entered into under agreements are necessary and beneficial to include in the report. We improved the wording of the recommendation to ensure it is understood that the recommendation covers only traditional procurement contracts entered into under agreements and not all reimbursable agreements.

The National Oceanic and Atmospheric Administration concurred with the recommendation, but wished to clarify that each of the four agreements did have a JOFOC and that two of the contracts that exceeded \$25,000 originally were valued at under \$25,000. Based on NOAA's response and a discussion with the contracting officer, we determined that the four agreements do have a JOFOC. In fact, they all have identical JOFOCs. However, as we stated in the report, each contract should have an individual JOFOC. Each justification should be specific to the contract in question. While we appreciate that two of the contracts exceeded the \$25,000 threshold only after change orders were added, documentation explaining and justifying the changes should have been recorded and placed in the files at the time the changes were made and provided to us during the review.

***C. Some NWS agreements are invalid because they lack authorized signatures***

Of the 62 NWS agreements we reviewed, 9 agreements were signed by unauthorized individuals and 3 agreements had not been signed by either party, yet NWS was proceeding with planning activities as if the agreements were in force. For one reimbursable agreement, we were only able to find a letter to NWS setting forth NWS's work to be performed. However, NWS never acknowledged this letter in writing. The *NOAA Budget Handbook* specifies the approval authority for reimbursable agreements and the *NWS Original Letter for Delegation of Authorizing Official*, dated October 1997, specifies the signature authority for obligations. Without proper signatures or acknowledgments by both parties, an agreement is not valid. If an agreement is not valid, the other party may not be required to fulfill all terms and conditions, thus putting NWS's resources and credibility at risk.

***D. Duration not specified on some NWS agreements***

Of the 62 NWS agreements we reviewed, 39 did not specify the performance term and 26 failed to cite an effective date. In addition, some agreements did not state a termination date. Absence of this information may lead to confusion over billing and when performance of work is to begin

and end. The *NOAA Budget Handbook* requires that reimbursable agreements include terms stating when and under what circumstances the agreement is to be terminated. *NOAA Administrative Order 201-105* requires that assistant administrators and line office directors ensure that memoranda of understanding or agreement include mandatory start and termination dates. Defining these relevant dates or time periods is also important to ensure that agreements are properly administered and kept up-to-date. When the stated performance period is undefined or indefinite, it is difficult to determine whether the agreement is still valid and whether reassessment of the agreement ever occurred. In addition, even if a need still exists, critical features of the project, such as the level of funding or other resources, may need modification. An ill-defined performance period may ultimately result in the performance of work that is no longer mission-related, the waste of funds and personnel, or the inequitable apportioning of project costs.

All agreements should have a defined performance period with a stated effective date and, when possible, a specific termination date. For agreements that continue over an extended term, when it is not feasible to define a termination date, the agreement should have a provision for a periodic review and amendment by mutual consent of the parties.

*E. Policies and procedures for preparing agreements should be improved*

To ensure that the deficiencies previously discussed do not continue, NWS should improve administrative guidance for preparing agreements. Existing guidelines, policies, and procedures are (1) limited in their usefulness for preparing agreements, (2) are not up-to-date, and (3) are not centrally located for easy reference. As a result, NWS lacks a complete, well-documented system to guide its offices in developing agreements that are consistently and properly prepared and comply with specific agreement authorities.

Current guidelines, policies, and procedures are limited

In performing our review, we found that NWS, NOAA, and the Department currently have several different sources for policies, procedures, and guidelines to assist offices in preparing agreements. However, these guidelines are inadequate because most provide just limited information. (A summary of current Commerce, NOAA, and NWS guidelines is provided in the Appendix.)

Despite the various guidance, NWS does not have guidelines that consistently define the different types of agreements, the pertinent policies to use in preparing and executing agreements, and what legal authorities are applicable for the different types of agreements. Such guidelines are necessary to ensure that agreements are consistently and properly prepared and comply with any specific agreement authorities. We attempted to document NWS's current process for preparing agreements, as defined by the various departmental, NOAA, and NWS

guidelines, policies, and procedures, but found it difficult because of the fragmented nature of the existing guidance. NWS had not previously documented its own process, but verified the results of our effort.

Guidelines, policies, and procedures are not up-to-date

We also found that the NWS and NOAA guidelines, policies, and procedures have not been regularly updated or clarified. For example, draft chapter E-05 and chapter E-12 of the *NWS Operations Manual*, have not been updated since March 1982 and May 1985, respectively. Also, the *NOAA Budget Handbook*, last updated in 1994, refers to NWS finance functions that have since been moved to other offices. In response to our audit of NOAA's fiscal year 1996 financial statements,<sup>7</sup> NWS updated the *NOAA Budget Handbook* issuing a December 1997 memorandum from NOAA's Acting Chief Financial Officer. The memorandum outlines several new policies for reimbursable agreements. NOAA plans to revise the *NOAA Budget Handbook* once these new policies have been fully implemented.

There were other instances where existing NWS guidelines, policies, and procedures have not been regularly updated or clarified. For example, NWS regional offices are using standard models to prepare agreements for establishing flash flood warning systems at local sites. These models have not been updated since 1974 and 1980. We also found other guidelines that are in need of some further interpretation. For example, *NOAA Administrative Order 201-105* requires that an agreement be signed by the responsible Assistant Administrator, if the agreement involves a major policy issue. However, the NOAA Administrative Order does not define what criteria constitutes a major policy issue.

NWS guidelines should be developed

As a result of the current collection of disparate NWS guidelines, we found that the agreements contain deficiencies in three critical areas—cost recovery, financial, and procedural, as discussed in detail previously in this report. To correct these problems, NWS should prepare a comprehensive set of guidelines for preparing all types of agreements including standardized agreement definitions, steps for preparing agreements, and the provisions necessary for compliance. These policies should include at least the following requirements: full cost recovery, equitable apportionment of costs for joint projects, citation of legal authorities, appropriate level of approval, applicable written justifications, and termination dates and/or review periods. NOAA Counsel and OGC should assist NWS in updating its policy to ensure

---

<sup>7</sup>During a review of NOAA's fiscal year 1996 financial statements, auditors found that, among other things, (1) NOAA programs were conducting work without a current agreement, (2) reimbursable projects were not being billed according to the terms of the agreements, and (3) NOAA was not consistently collecting funds in advance for non-federal reimbursable projects.

that it is complete and accurate. In addition, NWS should review and update its guidelines every three years to incorporate any necessary changes or clarifications.

NWS is also not clearly communicating its requirements for agreements to other parties, when the other parties prepare agreements. As a result, we noted a number of agreements initiated by other parties that lacked the required standard terms, such as a legal citation for NWS, billing terms, and termination date. We suggest that NWS work with OGC, NOAA Counsel, and NOAA management to establish a formal procedure for ensuring that agreements prepared by other parties are complete. NOAA should develop standard language that is sent to the sponsoring party when negotiations on a project first begin. The standard language would inform the other party of basic elements that must be included in any formal agreement, including legal citation, termination date or performance period, and total project costs. This notice could be incorporated into any initial correspondence or be presented as a brief standard model.

In February 1998, the Office of Oceanic and Atmospheric Research's Environmental Research Laboratories (ERL) started using a checklist to follow while preparing agreements. The checklist includes basic information about the agreement (such as type of sponsor and period of performance), substantive justifications, applicable legal authority, strategic plan elements, budget information, billing basis and cycle, and waiver justification for not seeking advance funding from non-federal sources. The official preparing an agreement must mark certain boxes to identify which option in each section is applicable. Once completed, the checklist will remain on file with the agreement and serve as an assurance that each of the required elements have been addressed. NMFS also implemented a checklist to follow while preparing agreements, providing questions requiring yes or no answers concerning the requirements for each type of agreement, applicable legal authorities, advance funding, and budget breakout of total costs.<sup>8</sup> If consistently applied and regularly updated, both ERL's and NMFS's checklists should improve their compliance with federal requirements for agreements.

NWS should consider implementing a checklist similar to ERL's or NMFS's, to be included in its office-wide policies and procedures. Although we agree that the checklist is a good tool for administrative officials and supervisors who are involved in preparing or reviewing agreements, the checklist should be supplemented by thorough and consistent guidelines on agreements. Centralized and consistent guidelines are a necessary resource for officials preparing agreements, by providing such information as when an agreement is necessary, what level of approval is required, and suggested language for agreements. The guidelines, therefore, should mirror the checklist by providing detailed explanations of each section and any other necessary information.

---

<sup>8</sup>NMFS checklist is part of its *Final Policy and Procedures for Interagency Agreements and Memoranda of Agreement and Understanding* issued on January 28, 1998, by the Assistant Administrator for Fisheries.



NWS should also be aware that the Department is now developing Department-wide guidance on agreements. We have discussed with Department officials the possibility of developing a new Department Administrative Order for agreements. The Department's Chief Financial Officer and Assistant Secretary for Administration agreed to establish uniform Department-wide policies and procedures using a handbook format that, once issued, would be broadly disseminated and electronically accessible.<sup>9</sup> NWS should make sure its internal policies and procedures are consistent with this forthcoming departmental guidance.

Wide distribution of any new or updated policies and procedures is essential. NWS should provide training to all current and future administrative and program staff on how to properly prepare and process agreements. NWS should also make all information relevant to preparing and processing agreements easily accessible by posting documents on NOAA's intranet. Finally, we understand that NWS regularly holds annual administrative and management conferences. Agreements should be a regular topic during these conferences, including the discussion of any subsequent changes in the law and agency procedures.

On November 30, 1998, NOAA's Deputy Under Secretary for Oceans and Atmosphere requested that all NOAA line and staff offices adopt procedures for preparing interagency agreements. The Deputy Under Secretary also stated that these procedures, as well as NOAA-wide guidance that will also be developed, should be similar to the procedures recently issued by the National Marine Fisheries Service. In addition, he specified that the appropriate NOAA staff handling agreements should be provided training on the legal aspects of preparing agreements, as well as aspects of appropriations law and other general administrative law issues.

---

NOAA concurred with our recommendations that it 1) develop a comprehensive set of guidelines for preparing all types of NWS agreements, and 2) disseminate relevant information for preparing and processing agreements.

OGC/Admin stated that although we mention that the *NOAA Administrative Order 201-105* and the *NOAA Budget Handbook* are insufficient and ill-defined guidance, the repeated references to these documents may lead to program officials considering them authoritative guidance for agreements. Because the documents were in force at the time of the review, they were applicable as criteria and a necessary component of our review. We have stated in the report that NWS needs updated and improved policies and procedures, including the two documents mentioned.

---

<sup>9</sup> *Office of the Secretary-Interagency and Other Special Agreements Require Better Management and Oversight*, IPE-10418, September 30, 1998.

OGC/Admin questioned the necessity of detailed budgets for all agreements under the Joint Project Authority. OGC stated that Commerce program officials have found it difficult to obtain detailed budgets from some proposed outside partners in joint projects. The proposed partner's extra administrative work of developing budget information was described as a potential "deal breaker." Although we appreciate that there is some work involved in developing budget estimates, we believe that a budget with a reasonable breakdown of costs is necessary to ensure that the agreement complies with statutory and regulatory requirements. We question the wisdom of entering into agreements with organizations that are unwilling to provide an estimate of total project costs coupled with a reasonable breakdown of those costs.

### III. Oversight Process for Reviewing Agreements Needs Improvement

Although some NWS offices have well-executed agreements containing required elements such as legal authority, budget documentation, and authorized signatures, we found that NWS's review process is deficient, often resulting in poor oversight, incomplete agreements, and a wide range of other deficiencies. Currently, NWS (1) has an inconsistent and mostly undocumented process for both the preparation and review of agreements, (2) does not always include the necessary written justifications, where applicable, (3) does not always include required legal review of agreements, and (4) does not ensure that appropriate periodic reviews are made after the agreements have commenced.

#### A. *NWS agreements do not always receive consistent and appropriate review*

NWS personnel responsible for preparing agreements follow an inconsistent and inadequately documented process for reviewing agreements. There is no comprehensive guidance available within NWS, or from the Department, that spells out the requirements and administrative guidelines necessary for reviewing agreements. Many staff are also uninformed of the existing documents outlining the agreements process. For example, some NWS offices were unfamiliar with the thresholds established for agreement review. According to current NOAA policy, NWS's Office of the Assistant Administrator has responsibility for approving reimbursable agreements which transfer funds between \$100,000 and \$1 million. Reimbursable agreements greater than \$1 million must be sent to NOAA's Chief Financial Officer/Chief Administrative Officer who must approve the agreement and forward it on to the Deputy Undersecretary for Oceans and Atmosphere for final approval.<sup>10</sup> Some offices use the *Original Letter for Delegation of Authorizing Official* thresholds for signing reimbursable funding agreements, even though it only applies to the expenditure of funds. As a result, some agreements are not getting the proper review by the appropriate signature authority.

#### B. *Contracting officers do not regularly review and approve agreements*

While the NWS review process is not being consistently followed, the process is also problematic in that it does not require the preparation and review of a Determination and Finding for Economy Act transactions as required by the Federal Acquisition Regulation. D&Fs must incorporate an economic analysis in accordance with OMB Circular A-76.<sup>11</sup> Circular A-76 prohibits a requesting agency from competing with the private sector and requires that the government rely on commercially available products and services to the maximum extent possible. To this end, a requesting agency must prepare an analysis of its requirements to

---

<sup>10</sup> NOAA Budget Handbook, Chapter 2, Section 3.

<sup>11</sup> FAR § 17.502(c), citing FAR § 7.3.

determine that use of another agency's resources is necessary because (1) there is no commercially available source, (2) the required goods or services are a matter of national security or government medical patient care, or (3) procuring from another agency is the lowest cost solution.

The FAR states that Determination and Findings "shall be approved by a contracting officer of the requesting agency with authority to contract for the supplies or services to be ordered, or by another official designated by the agency head."<sup>12</sup> Specifically, a contracting officer ensures that authorities and funding are adequate. The FAR requirement for requesting agencies to prepare a D&F for Economy Act transfers appears to be the only regulation that explicitly requires a written justification addressing relevant legal criteria.<sup>13</sup> Yet, for all types of agreements regardless of the legal authority cited, written justifications, which prove that the legal criteria have been met, represent a good management practice. Several of the criteria listed in Table 2 are complex, such as the Joint Project Authority requirement that the project cannot be done at all or as effectively without the participation of all parties. Without the aid of a written justification, it may be difficult to show that the criteria for some agreements have been met. In addition, managers or other officials who review agreements that they did not negotiate need sufficient written documentation to determine that all relevant criteria have been met.

Currently, this FAR requirement is not present in any NWS guideline. We found that some task managers, responsible for the financial and programmatic oversight of projects or tasks, and program officials, are unaware of the FAR requirement. Other task managers were aware of the FAR guidelines. However, because NWS offices do not have their own contracting officers and do not routinely consult departmental or NOAA contracting officers for advice on the FAR, they are not preparing or submitting their Determination and Findings for review by a contracting officer. Without the approval of a contracting officer who has training and experience in obtaining goods and services, particularly through competitive bidding, the federal government may be wasting funds.

To correct these problems, NWS guidelines for the review of agreements need to explicitly state the responsibilities of the various offices, the path of review and approval, and thresholds for review. NWS should draw upon the existing guidelines, such as the *NOAA Budget Handbook*, Chapter 2, Section 3; the FAR; and *NOAA Administrative Order 201-105*. The guidelines should reaffirm that NOAA's Office of Finance and Administration must review all Determination and Findings for Economy Act agreements.

---

<sup>12</sup>FAR § 17.503(c).

<sup>13</sup>In addition to a D&F, the FAR requires that Economy Act agreements include specific provisions, such as a description of the supplies or services required, delivery requirements, a funds citation, payment terms, and acquisition authority, as may be appropriate (FAR § 17.504(b)).

*C. NWS agreements do not always receive appropriate legal review*

Of the 62 NWS agreements we reviewed, only 12 were approved by OGC. If an agreement has not been reviewed by legal counsel, it may (1) not comply with legislative and regulatory requirements, (2) not cite appropriate legal authority, or (3) include terms unacceptable to or unnecessary for a federal agency. We found two major reasons that perhaps explain why only 12 agreements were reviewed by OGC. First, NWS, NOAA, and the Department all lack formal criteria for the review of agreements by OGC. Second, departmental personnel have greatly misinterpreted an OGC memorandum that stated which agreements should be submitted for legal review.

NWS, NOAA, and the Department lack written criteria for legal review of agreements

Because NWS lacks written criteria for which agreements require legal review, actual practices vary among the offices within NWS. We found that many NWS personnel were confused about when to send agreements for legal review. While some offices submitted all agreements for legal review, other offices only submitted agreements if they felt they had potential legal risks or outstanding legal questions. In addition, NWS personnel in field offices were generally not aware of the legal review process for agreements sent to NWS headquarters. NWS personnel in the field offices often could not furnish information as to whether the agreements sent to NWS headquarters had obtained approval from OGC. NWS officials at headquarters stated that all agreements received from the field offices are sent to OGC for review. Due to the lack of any documentation, we were not able to verify whether these agreements are sent to OGC from headquarters.

We also noted that there is no written policy about which agreements require NOAA Counsel review. Without a written policy with regard to NOAA Counsel review, there is potential for confusion about the role of NOAA Counsel in the review and approval process. According to NOAA Counsel, NWS programs should first submit agreements to NOAA Counsel for review. NOAA Counsel then forwards those agreements to OGC. OGC has delegated authority to NOAA Counsel to review only one type of agreement—routine user fee agreements. This delegation, however, was not transmitted in a formal memorandum or directive. OGC simply informed NOAA Counsel of the delegation in their comments on the particular user fee agreement. Since NOAA Counsel only recently implemented a log to track its projects, we were unable to determine how many of these user fee agreements were actually reviewed by NOAA Counsel.

In response to an earlier OIG report on NMFS agreements,<sup>14</sup> OGC has stated that NOAA Counsel's review should not take the place of OGC's formal legal review for all NMFS agreements that require legal review per the NMFS criteria. We believe that the OGC and NOAA Counsel's role should be clarified for all NOAA line offices. NWS guidelines should clearly state that it is the sole responsibility of OGC to provide review and clearance on any NWS agreements that require legal review, as per the criteria set forth in the guidelines.

OGC's memorandum has been misinterpreted by departmental personnel

Although an April 1994 memorandum from Commerce's General Counsel states that Economy Act and joint project agreements "should" be sent to OGC for review, until recently bureau-level personnel have interpreted this memorandum as allowing some amount of discretion. Even though OGC officials told us that they expect to review all funded and unfunded agreements unless a specific delegation has been granted, they were not aware of the large number of agreements that they do not review.<sup>15</sup> Currently, OGC reviews only about 300-400 agreements per year. Commerce bureaus had over 4,700 agreements in place in fiscal year 1997.

As we noted previously, on November 30, 1998, NOAA's Deputy Under Secretary for Oceans and Atmosphere asked all NOAA line and staff offices to develop procedures for interagency agreements. The Deputy Under Secretary also directed that while NOAA-wide procedures were being developed, all proposed interagency agreements and MOA/MOU's should be forwarded for review and clearance to the Office of the Assistant General Counsel for Administration through the NOAA Executive Secretariat.

Formal policies and procedures are needed

NWS program officials, NOAA Counsel, and OGC should work together to develop a clear written policy that establishes reasonable criteria and thresholds for OGC review of NWS agreements. OGC has already established thresholds for legal review of National Marine

---

<sup>14</sup>NMFS's *Interagency and Other Special Agreements Require Additional Improvements*, IPE-10775, September 1998.

<sup>15</sup>According to a memorandum dated December 29, 1997, from the Department's Assistant General Counsel for Administration to NOAA's Assistant Administrator for Fisheries, "Unfunded agreements . . . neither make an obligation or commitment nor transfer funds or property."

Fisheries Service (NMFS) agreements.<sup>16</sup> Some possible criteria for when OGC must review NWS agreements could include those that reach a certain dollar threshold, include irregular terms and conditions, or involve a private or foreign party. The criteria should also clearly specify which types of agreements (e.g., interagency purchase orders or joint projects) require OGC and/or NOAA Counsel review.

With new guidelines for legal review, we are concerned that OGC's workload could significantly increase, affecting its ability to complete reviews within a reasonable amount of time. As these agreements are renewed or reviewed and new agreements are created, a requirement for regular legal review could significantly impact OGC. OGC officials stated that they could handle the review of additional agreements, but they had not evaluated the potential workload increase.

We agree that only certain NWS agreements need to be reviewed by OGC. Consequently, OGC should balance any new requirements for legal review against the potential workload increase. In order to alleviate some of the concerns about potential lengthy delays in legal reviews, the policy should state how much lead time is required to obtain legal review. NWS program officials must then provide agreements to OGC or NOAA Counsel in sufficient time for legal review to be completed before a project is expected to start. OGC should also periodically contact the program office to inform program officials about the status of legal review. Program officials can then better anticipate when legal review will be completed. We were told that OGC currently requires its attorneys to contact the relevant program office within two days of receiving an agreement. We encourage OGC and NOAA Counsel to also provide feedback to program officials when their review will not be completed within their deadline.

In addition to a clear policy, NOAA Counsel and OGC should develop some standard language or model agreements for use by the programs. We understand that some model agreements have been developed in the past. For example, in 1982 and 1985, NWS's Office of Systems Operations created prototype agreements specifically for Special Hydrologic Services and Local Flood Warning Systems, respectively. The *NOAA Budget Handbook* and *NOAA Administrative Order 201-105* on memoranda of understanding or agreement also include some standard language, which may be outdated and have limited utility. We also understand that NMFS' new guidelines provide some sample agreements and checklists that help to ensure compliance with all applicable requirements. Pre-approved language, that is regularly reviewed and updated, would facilitate the process by making agreements easier to draft and to review.

---

<sup>16</sup>The new NMFS guidelines state that OGC will review all NMFS agreements except (1) Economy Act agreements where less than \$100,000 is being transferred or (2) unfunded agreements with other federal agencies that are for the period of five years or less. However, if personal property is being transferred or loaned under an unfunded NMFS agreement, OGC review must be obtained. Furthermore, all joint project agreements, regardless of funding, must continue to be cleared by OGC.

***D. Periodic evaluation of agreements should be formalized***

A final problem contributing to the poor oversight of NWS agreements, is that NWS offices are not periodically reevaluating existing agreements. NWS and NOAA policies are not consistent with regard to how frequent agreements are to be reviewed. For example, in September 1997, NWS issued a directive requiring that all reimbursable/interagency agreements be reviewed at least once every three years. The *NOAA Budget Handbook*, however, requires that reimbursable agreements include terms stating that the agreement must be reviewed periodically, but not less than annually. Finally, *NOAA Administrative Order 201-105* requires terms for "periodic" review in memoranda of understanding or agreement. NWS needs to reconcile the disparity between these policies and determine a frequency for the evaluation of agreements.

Although all three policies require the reevaluation of agreements, we found four NWS agreements that had no activity for at least two years, and more importantly, that four agreements had not been formally reviewed for over a decade. For example, NWS has a reimbursable agreement with the U.S. Coast Guard dating back to 1972, which has never been formally reevaluated. The agreement specifies that a minimum of 15 Coast Guard personnel are to be detailed to NWS's National Data Buoy Center. We question the specificity of this agreement, particularly with regard to personnel levels, to remain in force for 25 years without being updated. NWS and the Coast Guard have recently decided to review the agreement, based on the results of a National Research Council study on the national needs for weather buoys, the primary item covered by this reimbursable agreement. NWS should renegotiate and finalize a new agreement with the U.S. Coast Guard for the National Data Buoy Center. The negotiations should take into account the cost savings that might be gained from a reduction in the number of Coast Guard personnel.

Program conditions and needs change, so the failure to reassess agreements periodically, and update or terminate them accordingly, may result in lost opportunities for cost savings. Furthermore, new sources of services or goods may be available, at the time of the reassessment, that might be more convenient or economical. Also, new technologies or processes may make responsibilities outlined in agreements outdated or unnecessary. Finally, NWS should terminate inactive agreements to eliminate any legal risk associated with them.

---

NOAA concurred with our recommendation that it establish a consistent policy on the frequency of the reevaluation of all NWS agreements and will renegotiate and finalize a new agreement with the U.S. Coast Guard for the National Data Buoy Center.

OGC indicated its preference for flexibility on the requirement for a termination date or review period. It had been made aware of "instances where an operating unit of the Department will



have negotiated very favorable terms in an agreement, and will want to have those terms to continue for as long as possible." Although there may be instances in which the Department has negotiated a "good deal," we do not feel that the potential harm of renegotiating favorable agreement terms outweighs the cost and program benefits outlined above that can be gained from periodic reassessment of agreements. Thus, we have reaffirmed our recommendation in this area.

#### IV. Financial Management of Agreements Needs Attention

We found financial problems in some NWS agreements, including actual costs that were not being recovered and costs that were not being equitably apportioned under the Joint Project Authority. We also found improper billing for some NWS agreements.

##### A. *NWS does not always recover or properly apportion full costs*

NWS is required by federal law, Office of Management and Budget (OMB) Circular A-25 dealing with user fees, the *Department of Commerce Accounting Principles and Standards Handbook*, and the *NOAA Budget Handbook* to achieve full cost recovery for work performed under some agreements. In particular, the Economy Act (31 U.S.C. §§ 1535-1536), requires federal agencies to recover actual costs for reimbursable work performed for other federal agencies. In addition, Commerce's Joint Project Authority (15 U.S.C. §§ 1525-1526) requires agencies performing joint projects to apportion full costs on an equitable basis. Although equitable apportionment does not require that costs be split equally between joint project partners, an understanding of the project costs is necessary for managers to ensure equitable apportionment. Because the statute gives the Secretary of Commerce discretion to determine equitable apportionment, the Department should have standards or methods for defining equitable apportionment.

An agency's failure to recover actual costs or to equitably apportion full costs could result in a circumvention of the appropriation process because it could cause the agency to undercharge or overcharge the sponsoring organization. A performing agency's appropriated funds may be improperly (1) depleted to the extent that the labor and other costs that should be charged to sponsored project agreements are charged to appropriated funds or (2) augmented to the extent that an agency receives payments in excess of its actual costs. Furthermore, the ordering agency's appropriation can be improperly augmented to the extent that it does not reimburse the performing agency for its full costs.

##### Some NWS agreements did not recover full costs

Of the 62 NWS agreements we reviewed, 13 did not recover full costs. OMB Circular A-25 requires agencies to recover full costs unless a waiver is obtained.<sup>17</sup> Yet, NWS did not obtain waivers from OMB for all 13 of these agreements. One example of this problem involves an agreement between NWS and the U.S. Department of Agriculture (USDA), which establishes an agricultural and weather climate information system for USDA, and provides for the joint preparation, publication, and dissemination of USDA's "Weekly Weather Crop Bulletin." The

---

<sup>17</sup> OMB Circular No. A-25 Revised, User Charges, July 8, 1993.

Bulletin is made available to, and paid for by, the public through subscriptions. We found that the calculation of subscription fees charged by NWS for the Bulletin does not conform to applicable OMB directives or Chapter 17, Section 4 of the *Department of Commerce Accounting Principles and Standards Handbook*. Specifically, OMB Circular A-25 establishes federal policy regarding fees assessed for government services and requires federal agencies to recover the full cost (which includes all direct and indirect costs), of providing the relevant service, resource, or good. We found that NWS is not charging for the cost of postage, labor, and overhead in the subscription rate. In addition, NWS has not obtained a waiver from OMB that would give it the authority not to recover these costs in the Bulletin's subscription rates.

In 1996, NOAA implemented a detailed labor cost accounting process entitled *Standardized Labor Distribution Worksheet Procedures*. We found NWS's National Data Buoy Center is not using this process to account for its labor and overhead costs for its respective reimbursable agreements. Furthermore, the labor costs of non-departmental personnel detailed to the center from another federal agency and paid for on a reimbursable basis are not being properly apportioned among the various reimbursable projects. Under NOAA's cost accounting process, these labor costs should be tracked by reimbursable task number and charged to the appropriate project.

The impact of the NWS office not using the labor cost accounting process is that total costs are not being recovered on four reimbursable projects authorized under the Economy Act and on one user fee agreement. The failure to recover labor and overhead costs resulted in NWS losing between \$3,500 and \$10,000 during fiscal year 1997. NWS should determine whether the NOAA labor cost accounting process is feasible for NWS's National Data Buoy Center to record labor costs by reimbursable project. In the event that a cost accounting process is not feasible, NWS should examine a prorated system for determining labor costs.

#### Some NWS joint project agreements did not properly apportion costs

Of the 62 NWS agreements we reviewed, 5 agreements cited the Joint Project Authority as the applicable funding authority. We questioned whether costs were being equitably apportioned on three of these five projects.

The first of the three problematic agreements is between NWS and the USDA's Forest Service providing for the transfer of four full-time NWS meteorologists to two Forest Service offices in California. While working for the Forest Service, these meteorologists are providing fire and weather forecasting services to fulfill both agencies' missions of protecting life and property. The agreement specifies that the meteorologists will effectively become Forest Service employees under the supervision of Forest Service assistant directors. Although there is no detailed budget of the costs borne by each party to this agreement, NWS told us that the Forest Service is paying the salaries of the four NWS meteorologists. NWS's contribution, according to

the agreement, is to provide and pay for two additional full-time meteorologists. Even with this contribution, NWS estimates that approximately 67 percent of personnel costs and 99 percent of all other costs related to this agreement are still paid for by the Forest Service. We question whether costs are being equitably apportioned between NWS and the Forest Service because it appears that NWS is making a minimal financial contribution to the project and both parties are not accounting for actual project costs. Without tracking actual project costs it is difficult to determine if costs are equitably apportioned.

The second agreement, between NWS and the Federal Emergency Management Agency (FEMA), cites Joint Project Authority, however it is not clear whether costs were equitably apportioned. The purpose of this agreement is to jointly develop training courses on mitigation, preparedness, response, and recovery for atmospheric, riverine, and oceanic hazards. We found that the actual project costs, provided to us by FEMA, did not reflect the budgeted distribution of costs, as stated in the agreement. For example, the budget provides for costs in the first two years to be almost 49 percent and 51 percent for NWS and FEMA, respectively. However, actual costs for the first two years indicated 18 percent and 82 percent for NWS and FEMA, respectively. In addition, neither FEMA nor NWS are adequately tracking their costs--a fact which also makes it difficult to determine if costs are being equitably apportioned.

The final problematic agreement, between NWS, the Department of Defense, and the Department of Transportation, cites Joint Project Authority as the basis for allocating agency costs for the NEXRAD weather surveillance radar program. However, each agency is excluding labor and overhead from the calculation of total costs. NWS personnel stated that accounting for labor and overhead costs is an administrative burden to all parties of the agreement. We question whether costs can be equitably apportioned if significant cost elements such as labor and overhead are not being included. Without this cost information, it is difficult to determine if all costs are being equitably apportioned or if one agency is bearing an inflated share of the total project costs. The financial impact of this omission, however, may not be significant because we found that each agency is apportioning staffing levels equitably, according to the agreement's specific language. Nevertheless, in a joint project of this magnitude,<sup>18</sup> all three agencies should include labor and overhead in the calculation of total project costs. Similarly, for all joint projects, NWS should be accounting for total project costs and demonstrating that these costs are equitably apportioned.

---

NOAA concurred with our recommendation that it determine whether the NOAA labor cost accounting process is feasible for NWS's National Data Buoy Center to record labor costs by reimbursable project.

---

<sup>18</sup>NWS estimates that its labor expenditures for fiscal year 1997 were \$6.7 million, excluding overhead.

OGC/Admin correctly pointed out that "equitable apportionment" of costs does not mean that costs must be shared on an equal basis. We never intended to say that costs must be split equally between partners to a joint project. However, if partners to a joint project do not estimate or track costs, NWS managers cannot ensure that costs are being equitably apportioned. On page 25, we have added language to clarify our position.

***B. NWS did not properly bill for some agreements***

As part of our review, we inquired about the billing process and the cost breakdown of the bills in fiscal year 1997 for reimbursable agreements. Of the 62 NWS agreements we reviewed, 2 were not billed properly. For an agreement between NWS and the Food and Agricultural Organization of the United Nations (FAO) in Egypt, NWS billed expenses after they were incurred, rather than obtaining advance payment, as required by the *NOAA Budget Handbook*. The Handbook requires full payment advances unless a waiver is obtained from NOAA's Office of Finance and Administration. We found no record that waivers were ever prepared for this agreement. As a result of not obtaining advance payment, NWS is currently negotiating an unresolved billing issue with FAO. The disputed amount, \$150,000, primarily relates to services provided by NWS in fiscal year 1994 for Phase I of the project which ended March 31, 1994. The dispute occurred because NWS was unaware that FAO's Phase I funding terminated on March 31, 1994, and incorrectly billed the Phase I services after the termination date. FAO refuses to pay the entire disputed amount, because NWS was at fault for billing subsequent to the availability of funds. NWS is working on a settlement for one-half of the disputed amount. To ensure that this does not happen again, NWS stated that it will obtain quarterly advances from FAO for any services provided in the future, beginning in fiscal year 1998. However, the NOAA Budget Handbook still requires that NWS obtain a waiver of the full advance payment.

During our review of a reimbursable agreement between NWS and the National Aeronautics and Space Administration for weather support to the Space Shuttle Program, a NWS program official found a discrepancy in the fourth quarter bill to NASA. As a result of our inquiry, NWS was able to reduce the bill to NASA by about \$16,000. We believe that all NWS bills for reimbursable agreements should be reviewed with the same level of attention.

## V. A Database is Needed to Inventory and Track Agreements

We found that NWS has not established a comprehensive database or tracking system for its agreements. Although each NWS office provided us with a list of their agreements, NWS was unable to provide a comprehensive inventory that showed that all of its agreements received the proper review for legal issues, and signature level, and programmatic, procurement, and budget oversight. *NOAA's Organization Handbook* states that NWS's Management and Budget Office (MBO) is responsible for allocating resources to support NWS's headquarters and regional offices. Thus, MBO has fiscal oversight of reimbursable agreements, which comprise the majority of NWS's agreements. Yet, MBO does not have a comprehensive listing of all NWS agreements.

For "unfunded" agreements, NWS is also required by *NOAA Administrative Order 201-105*, to designate a memorandum of understanding representative who maintains copies of agreements and forwards copies to NOAA's Document Services Branch.<sup>19</sup> However, we found that the Document Services Branch did not have copies of all "unfunded" agreements. NWS has no other policies and procedures for properly maintaining lists and files with copies of agreements.

Without a comprehensive database, we had difficulty determining past and present agreements. During our inspection, we contacted NWS's MBO to obtain listings of NWS agreements by region and office. We also contacted the Eastern Region headquarters for their listing of agreements. Even after obtaining information from each office, we had reason to believe that not all NWS agreements had been provided. For example, we found additional agreements in the files of NOAA's Executive Secretariat, and later became aware of other agreements by talking to NWS personnel in various regions and offices. Since 1994, NOAA's Executive Secretariat has kept a copy of all agreements that it receives in a fairly detailed correspondence control system. However, based on our review, we found that fewer than one-quarter of NWS agreements issued within the last three years were included. This is understandable because the Executive Secretariat only logs in agreements signed at the NOAA level and agreements that are reviewed by OGC.

Because NWS is not tracking and controlling its agreements, there is inconsistent reporting of agreements between NWS offices. Specifically, each office has a different way of classifying agreements, and some offices have incorrectly excluded relevant agreements from the list of agreements provided to us. Also, some offices continue to record expired agreements, or erroneously included cooperative agreements, on the agreement list. Clearly, because no central

---

<sup>19</sup> The *NOAA Administrative Order 201-105*, dated October 13, 1992, defines "unfunded" agreements differently than the memorandum dated December 29, 1997, from the Department's Assistant General Counsel for Administration to NOAA's Assistant Administrator for Fisheries. We support the more current definition.

list exists, there is no mechanism for determining the accuracy of the agreement listings we obtained from the regions and headquarters offices.

A central database of agreements would be a useful management tool. The Government Performance and Results Act of 1993 requires federal agencies to describe coordination and planning with other agencies on shared or similar functions and programs. In July 1997, the House Science Committee criticized Commerce's strategic plan for failing to adequately discuss coordination of cross-cutting programs. The Department has since included more information about external program "linkages" in its strategic plan for 1997-2002. For each strategic theme (economic infrastructure, science/technology/information, and resource and asset management and stewardship), the Department describes several linkages with other federal and non-federal parties that support these themes. With a database of its agreements, NWS could provide input into NOAA's and Commerce's strategic plans, with such information as how many agreements exist, what agencies and other parties are involved, and total funding provided through these agreements. This information could prove useful in developing the strategic plan linkages.

From an administrative perspective, a central database of agreements would help NWS programs maintain their agreements. By having agreement dates tracked in the system, program officials could easily identify agreements that are due for renewal, termination, or review. In addition, program officials could quickly respond to inquiries on particular agreements by accessing the system to acquire current agreement information.

A central NWS database should include certain key elements, such as project title, parties, termination date, review date, legal authority, funding information, and contact person or office. The database should also identify the type of agreement (*i.e.*, agreements not involving funds transfers, reimbursable agreement, or obligation agreement). This system could also be used to establish a document numbering system. Each entry would be assigned a unique number, which would then be placed on the actual agreement and any related documents. NWS could then better identify and track the physical documents. Given the large number of NWS agreements and their importance to achieving NWS's mission, a comprehensive database of agreements with relevant information would help management and program officials control and maintain their agreements. Therefore, NWS should establish a centralized system to adequately inventory, track, and control NWS agreements. In addition, NWS should designate an agreement representative who will be responsible for maintaining all agreements in the centralized system.<sup>20</sup>

---

<sup>20</sup>In his November 30, 1998 memorandum, NOAA's Deputy Under Secretary for Oceans and Atmosphere asked each NOAA office to develop a database to track all new interagency and other special agreements which lists for each agreement (1) the number and type of agreements in place, (2) parties to the agreement, (3) the amount of funding, and (4) the period of performance.

As part of the separate report issued to the Department discussed on page 16, we made a recommendation that it establish a Department-wide database of agreements. We have identified two options for creating a central departmental list of agreements. First, the Department could develop one standard system or database program that each bureau can access to add, modify, or delete agreements. Alternatively, each bureau could maintain its own database that is compatible with requirements specified by the Department. The Department would define which data elements are required for a centralized list and then require the bureaus to periodically provide the information electronically into the central list at the Department level. The Department's Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA) agrees that consistent and reliable data should be maintained and readily accessible for all agreements administered by the Department and its bureaus. The CFO/ASA also stated that departmental personnel will determine whether one standard system or multiple bureau systems should be developed.<sup>21</sup> The department is currently deciding which approach is most feasible. Whichever approach is selected, NWS should closely coordinate with the Department to ensure that its agreements system is consistent and compatible with the forthcoming departmental policy.

---

NOAA concurred with our recommendation that it establish a centralized system to adequately inventory, track, and control NWS's agreements.

---

<sup>21</sup> *Office of the Secretary—Interagency and Other Special Agreements Require Better Management and Oversight*, IPE-10418, September 30, 1998.



## RECOMMENDATIONS

We recommend that the Under Secretary for Oceans and Atmosphere take the necessary actions to ensure the following:

1. When traditional procurement contracts are entered into under an interagency agreement, require NWS to adhere to the *Federal Acquisition Regulation* requirements for contracts, by preparing Justifications for Other Than Full and Open Competition and advertising in the *Commerce Business Daily* for all sole-source contracts over \$25,000 (see page 12).
2. Develop a comprehensive set of guidelines for preparing all types of NWS agreements that is consistent with forthcoming departmental guidance. These guidelines should include:
  - standardized agreement definitions, steps for preparing agreements, and the provisions necessary for compliance, and at least the following requirements: full cost recovery, equitable apportionment of costs for joint projects, citation of legal authorities, appropriate level of approval, total project costs, applicable written justifications, and termination dates and/or review periods (see page 14).
  - mechanisms to review and update the guidelines once every three years to incorporate any necessary changes or clarifications (see page 14).
  - formal procedures to notify other agencies of what terms are required in NWS agreements and to modify or amend incomplete agreements (see page 14).
  - a thorough description of the review process that explicitly states the responsibilities of the various offices, the path of review and approval, and thresholds for review. In addition, the guidelines should reaffirm that the Office of Finance and Administration reviews all Determination and Findings for Economy Act agreements (see page 19).
  - reasonable criteria, established in consultation with OGC, as to which agreements require legal review (see page 21).
  - standard language or model agreements for use by the program offices (see page 21).
  - a consistent policy on the frequency of the reevaluation of all agreements (see page 24).
3. Once NWS's guidelines have been finalized, provide training to appropriate current and future NWS staff on how to properly prepare and process agreements (see page 14).

4. Disseminate relevant information for preparing and processing agreements through NWS's intranet and at appropriate NWS management and administrative conferences, including any subsequent changes in federal, departmental, or agency regulations or procedures and applicable laws (see page 14).
5. Renegotiate and finalize a new agreement with the U.S. Coast Guard for the National Data Buoy Center. The negotiations should take into account the cost savings that might be gained from a reduction in the number of Coast Guard personnel (see page 24).
6. Determine whether the NOAA labor cost accounting process is feasible for NWS's National Data Buoy Center to record labor costs by reimbursable project. In the event that a cost accounting process is not feasible, NWS should examine a prorated system for determining labor costs (see page 26).
7. Establish a centralized system to adequately inventory, track, and control NWS's agreements. This system should be compatible with the proposed Department-wide database for agreements. Designate an agreement representative who will be responsible for maintaining all agreements in the centralized system (see page 30).

**APPENDIX A**  
**COMMERCE, NOAA, AND NWS**  
**CURRENT AGREEMENT GUIDELINES**

- ▶ **Memorandum from Acting Chief Financial Officer, December 1, 1997.** This memorandum reiterates and clarifies some of the policies and procedures in the *NOAA Budget Handbook* related to reimbursable agreements. Our office performed an audit of NOAA's fiscal year 1996 financial statements and presented findings related to reimbursable agreements. In response to these audit findings, this memorandum introduces some new reimbursable procedures to be followed, but it does not address obligation and unfunded agreements.
- ▶ **NWS Original Letter for Delegation of Authorizing Official, October 1997.** This letter addresses signature authority for obligation agreements only, designating approval levels by individual within each NWS organization, and is the only NWS guidance that addresses obligations.
- ▶ **Department of Commerce Accounting Principles and Standards Handbook, revised June 1996.** The handbook outlines, in general terms, departmental reimbursable services, joint projects, and user fees with other entities. The handbook states that full cost accounting by departmental offices must be obtained. The handbook does not, however, define or describe how agreements should be prepared and executed.
- ▶ **NOAA Budget Handbook, Chapter 2, Section 3, June 30, 1994.** The handbook provides procedures to follow when preparing reimbursable agreements, and includes a model agreement. An interagency agreement may be one of several types of Memorandum of Understanding (e.g., a Joint Project Agreement, an Economy Act agreement, a User Charge agreement, or some other type of agreement). The model, however, does not take into account the different terms that must be included in these different types of agreements.
- ▶ **Memorandum from General Counsel, April 8, 1994.** This memorandum states that all departmental offices "should" send their draft agreements to OGC for legal review. However, the memorandum does not provide guidelines for preparing agreements, and does not say which agreements, if any, *must* be reviewed by OGC.
- ▶ **NOAA Administrative Order 201-105, October 13, 1992.** This order describes procedures and responsibilities with regard to unfunded agreements only and provides a sample agreement. However, NOAA Administrative Order 201-105 contains contradictions, which can mislead NOAA officials who are trying to follow it.

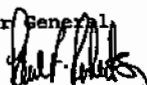
- ▶ **NOAA Finance Handbook, April 23, 1990.** This handbook provides guidance on "Fees for Special Products or Services," but does not describe how NWS agreements should be prepared and executed.
- ▶ **NWS Operations Manual, Draft Chapter E-05, March 1982; and Chapter E-12, May 6, 1985.** These manual sections provide specific guidance relevant for preparing agreements on Special Hydrologic Services and Local Flood Warning Systems. They also provide sample agreements.
- ▶ **NWS's Office of Systems Operations, Standard Policy and Procedures for Producing a Memorandum of Agreement between the NWS and Other Agencies, July 1993.** Because NWS offices lack consistent guidelines to use when preparing unfunded agreements, at least one NWS program has found it necessary to prepare its own guidance. While all other NWS offices and regions were provided a copy, we learned that these policies and procedures are only being followed by the Office of Systems Operations.

## APPENDIX B - NOAA's Response to Report



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

MAR 26 1999

MEMORANDUM FOR: Johnnie Frazier  
Acting Inspector General  
FROM: Paul F. Roberts   
SUBJECT: OIG Draft Inspection Report: NWS Requires  
Better Management of Interagency and Other  
Special Agreements, Report No. IPE-10417

Thank you for the opportunity to review and comment on the draft Office of the Inspector General (OIG) report on National Weather Services's (NWS) management of interagency agreements. We are pleased with the OIG's principal finding that the NWS does appropriately use agreements to support its mission. NOAA also agrees with the OIG's findings addressing the necessary improvements to strengthen the management of NWS agreements.

We concur with all of recommendations made in the report and are committed to developing improved guidelines for the preparation and review of interagency agreements.

Attachment



Printed on Recycled Paper



**OIG Draft Report Response**

**NWS Requires Better Management and Oversight of Interagency and Other Special Agreements, Draft Inspection Report IPE-10417**

**Recommendation 1:** For all National Weather Service's (NWS) reimbursable agreements, require NWS to adhere to the Federal Acquisition Regulation (FAR) requirements for contracts, by preparing Justifications for Other Than Full and Open Competition (JOFOC) and advertising in the *Commerce Business Daily* (CBD) for sole-source contracts over \$25,000.

**Response:** The National Oceanic and Atmospheric Administration (NOAA) concurs with this recommendation. However, clarification is needed on two points regarding several purchase orders issued by the Systems Acquisition Office (SAO) in support of an NWS intergovernmental agreement. First, the report states there was no evidence of an individual JOFOC for each file. Each file did contain a document that serves as the JOFOC. The Contracting Officer (CO) furnished only a single example of the JOFOC document to the OIG auditors since the document requested was identical for all reviewed files. This is a simple case of misunderstanding between the auditor and the CO. The CO assumed that the OIG was investigating the purpose behind the orders and not the orders themselves, and therefore, did not supply redundant documents.

Secondly, the OIG noted that the final value of two orders exceeded \$25,000 and correctly pointed out that FAR Part 5 requires publication of a CBD announcement for such orders. In these cases, the original order value was under \$25,000 and no CBD notice was needed. All orders in question were merely preliminary work being ordered until a comprehensive acquisition strategy could be put in place and the roles of various NOAA components, especially the SAO, could be finalized. This process was interrupted by the sudden, unanticipated replacement of the Assistant Administrator for Weather Services. Thus, no progress on assigning roles and responsibilities was made for a significant period of time.

During this time, the need arose to modify two orders so as to exceed \$25,000. The CO determined that more material harm would accrue to the Government by stopping all work during this management change than would accrue by continuing legitimate sole

source arrangement above the publication threshold. This is not the normal procedure for the SAO, but in light of the extraordinary circumstances, it was determined to be the best course of action. There is no further expectation of this happening in the future as the circumstances are not likely to occur again.

**Recommendation 2:** Develop a comprehensive set of guidelines for preparing all types of NWS agreements that is consistent with forthcoming departmental guidance. These guidelines should include:

- standardized agreement definitions, steps for preparing agreements, and the provisions necessary for compliance, and at least the following requirements: full cost recovery, equitable apportionment of costs for joint projects, citation of legal authorities, appropriate level of approval, total project costs, applicable written justifications, and termination dates and/or review periods.
- mechanisms to review and update the guidelines once every three years to incorporate any necessary changes or clarifications.
- formal procedures to notify other agencies of what terms are required in NWS agreements and to modify or amend incomplete agreements.
- a thorough description of the review process that explicitly states the responsibilities of the various offices, the path of review and approval, and thresholds for review. In addition, the guidelines should reaffirm that the Office of Finance and Administration reviews all Determination and Findings for Economy Act Agreements.
- reasonable criteria, established in consultation with the Office of the General Counsel, as to which agreements require legal review.
- standard language or model agreements for use by the program offices.
- a consistent policy on the frequency of the reevaluation of all agreements.

**Response:** NOAA concurs with this recommendation.

**Recommendation 3:** Once NWS' guidelines have been finalized, provide training to appropriate current and future NWS staff on how to properly prepare and process agreements.

**Response:** NOAA concurs with this recommendation.

**Recommendation 4:** Disseminate relevant information for preparing and processing agreements through NWS' intranet and at appropriate NWS management and administrative conferences, including any subsequent changes in federal, departmental, or agency regulations or procedures and applicable laws.

**Response:** NOAA concurs with this recommendation.

**Recommendation 5:** Renegotiate and finalize a new agreement with the U.S. Coast Guard for the National Data Buoy Center. The negotiations should take into account the cost savings that might be gained from a reduction in the number of U.S. Coast Guard personnel.

**Response:** NOAA concurs with this recommendation.

**Recommendation 6:** Determine whether the NOAA labor cost accounting process is feasible for NWS' National Data Buoy Center to record labor costs by reimbursable project. In the event that a cost accounting process is not feasible, NWS should reexamine a prorated system for determining labor costs.

**Response:** NOAA concurs with this recommendation.

**Recommendation 7:** Establish a centralized system to adequately inventory, track, and control NWS' agreements. This system should be compatible with the proposed Department-wide database for agreements. Designate an agreement representative who will be responsible for maintaining all agreements in the centralized system.

**Response:** NOAA concurs with this recommendation.



APPENDIX C - OGC/Administration's Response to Report



UNITED STATES DEPARTMENT OF COMMERCE  
Office of the General Counsel  
Washington, D.C. 20230

MAR 26 1999

MEMORANDUM FOR: Jill A. Gross  
Acting Assistant Inspector General for  
Inspections and Program Evaluations  
Office of the Inspector General

FROM: Brian D. DiGiacomo *Brian D. DiGiacomo*  
Chief, General Law Division

SUBJECT: Draft Inspection Report No. IPE-10417

Below we are providing our comments to Draft Inspection Report No. IPE-10417 on interagency and other special agreements of the National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA).<sup>1</sup> While we agree with most of your recommendations, there are some comments in the NWS report with which we do not agree.

As with Draft Inspection Report No. IPE-10418<sup>2</sup> and No. 10775,<sup>3</sup> the NWS report coincides with our own recent efforts with NOAA and other operating units to improve the preparation and review of agreements. We note the reviews did not reveal any case where the problems identified in the reports resulted in harm to NOAA or to the Department. This fact is significant as the Department attempts to balance the need for new requirements with the continued need for flexibility in carrying out the wide variety of activities and functions among all Department bureaus and offices.

We hope our comments will assist you in making your final report both accurate and effective, and we are glad to assist in improving policies and procedures concerning the review and management of agreements. We appreciate your office's efforts in attempting to attain that goal.

Again, we would like to stress that the ultimate responsibility for compliance with all requirements will rest with the official who signs an agreement. Therefore, we believe the

<sup>1</sup> Draft Report: *NWS Requires Better Management and Oversight of Interagency and Other Special Agreements* (IPE-10417).

<sup>2</sup> Draft Report: *Office of the Secretary, Interagency and Other Special Agreements Requires Better Management and Oversight* (IPE-10418).

<sup>3</sup> Draft Report: *NMFS's Interagency and Other Special Agreements Require Additional Improvements* (IPE-10775).

primary goal of any plan for improvement should be to ensure that managers fully understand both the requirements in the law and their responsibility. We will continue to work with your staff in this effort.

The following are our comments to parts of the NWS draft report--these responses are intended to supplement our comments which we set forth in our response to Draft Inspection Report No. IPE-10418 and No. 10775.

1. We strongly recommend that all portions of the report related to contracts be deleted because this is not the subject of your report. (Your reports that address interagency and other special agreements generally do not address contracts or financial assistance matters.) Your first recommendation is that "[f]or all NWS reimbursable agreements, require NWS to adhere to the *Federal Acquisition Regulation* requirement for contracts, by preparing Justification for Other Than Full and Open Competition and advertising in the *Commerce Business Daily* for all sole-source contracts over \$25,000." You discuss this matter on p. 12 of your report.

This recommendation is too broad and does not state the correct legal principle. We have attended meetings with both your staff and NOAA officials where we learned that the NOAA Budget Office uses the term "reimbursable agreements" to include all types of agreements where funds are reimbursed to NOAA. Therefore, your recommendations, although based on one specific type of agreement (where NWS agreed with a foreign government to perform some procurement contracting actions), might be mistakenly construed to apply to agreements where no procurement actions take place. For example, an agreement entered into pursuant to the Economy Act, 31 U.S.C. § 1535, may be a reimbursable agreement that is to a sole source and may be over \$25,000.00. However, it does not require the preparation of a Justification for Other Than Full and Open Competition or advertising in the *Commerce Business Daily* because it is with another Federal agency and the FAR does not require a Justification for Other Than Full and Open Competition. Accordingly, if you decide to address contracts issues in the report, we recommend that you revise your recommendation by narrowing it.

2. Equitable apportionment of costs in agreements pursuant to the Department's Joint Project Authority, 15 U.S.C. 1525. On pp. 25-26 you discuss equitable apportionment under the Department's Joint Project Authority. It is difficult to ascertain from the report what you contend "equitable apportionment" means. However, we get the impression that you think it means that costs must be shared on an equal basis. This is not a correct statement of what the statute requires and, indeed, it was never the intent of Congress to require equal sharing of costs.

The statute, among other things, was designed to allow the Department's appropriation to be augmented if certain parties have a mutual interest in Department projects and wish to further the Department's work. For example, it was envisioned that the statute would help further scientific research in which the Department was interested but did not have sufficient funds to undertake. Thus, if a joint project partner wishes to provide 70% of the activities needed for the project, while the Department provides 30%, this exactly the type of thing which the statute was designed to permit.

We recommend that you revise those sections of the report that address "equitable apportionment" of costs by deleting those sections that do not reflect the correct statement of what the statute requires. If you think it would be helpful, we will be happy to help you formulate the correct formula.

3. Necessity of budgets in agreements pursuant to the Department's Joint Project Authority, 15 U.S.C. 1525.

Your report implies that all joint project agreements must have detailed budgets in order to determine whether costs of a project have been equitably apportioned. While it may be desirable to have budgets attached showing each party's contribution, it is not legally necessary to have detailed budgets; the law only requires that the costs be equitably apportioned.

The OIG should be aware that clients working with proposed joint project partners have informed us that in certain instances, if they were to ask for a detailed budget from the proposed partner, the proposed partner would withdraw its offer to commit resources to a matter deemed necessary and essential to the Department. In other words, requiring this extra administrative work (which has at least on one occasion been described to us as "bureaucratic red tape") from a proposed partner, that is trying to assist the Department, would be a "deal breaker."

We do support the sound managerial preference for budgets. In fact, they assist us in determining the parties equitable apportionment of costs. However, detailed budgets are not required in all instances to make the determination that costs have been equitably apportioned. Therefore, we would request that your report be revised to allow flexibility in this area; an extremely high level of detail should not be an absolute requirement in guidelines that are developed.

4. Requirement of a termination date or specific date for review. The report states that all agreements should have a specific termination date or a specific date at which time the parties should review the agreement. See p. 13. We disagree with this statement because we have been made aware that there are times when such a term may run counter to the Department's interests and it is not legally required.

We are aware of instances where an operating unit of the Department will have negotiated very favorable terms in an agreement, and will want to have those terms to continue for as long as possible. Having a requirement that the agreement terminate at a specific date or a requirement that the parties review the agreement a specific date may effectively "open up" the terms of the agreement the operating unit would rather not have disturbed, *i.e.*, including such a term can cause an agreement to be renegotiated with worse terms being subsequently imposed on the Department. This is not a theoretical concern, but is one that clients have raised to our office.

Accordingly, while it may be preferable to have termination dates in an agreement, it should not, in our opinion, be an absolute requirement in any guidelines issued. We would request that your report be modified to reflect that there should be some flexibility around this issue based on the needs and interests of the Department and stress that operating units should develop regular processes for internal review, and that the lack of any termination date or clause in the agreement must be thoroughly justified.

5. NOAA Administrative Order 201-105. As we have explained in the past, our office has been working with NOAA to provide better written guidance on agreements, and we have identified problem areas in their policies and procedures.

An issue that we brought to your office's attention and to NOAA's attention is that NOAA Administrative Order (AO) 201-105 contains contradictions, and, therefore, is misleading to NOAA officials who are trying to follow it. In August, 1998 we met with NOAA officials to discuss our concerns. Indeed, on pp. 15, 33-34 of your report, you acknowledge that there are problems with this AO. However, there are several references to it in other sections of the report (pp. 9, 13, 15, 20, 22, 23, 28) that leads the reader to believe this AO is good guidance and should be followed.

Although there may be sound guidance in part of the AO, we think that you should examine your report to make sure that your approach is consistent with your finding that the Administrative Order, on the whole, should be revised. Furthermore, please be advised that NOAA is in the process of revoking this AO and replacing it with uniform guidelines for interagency agreements, a decision with which my office has given its concurrence.

6. NOAA Budget Handbook Chapter 2 Section 3 June 30, 1994. Similar to NOAA AO 201-105, you acknowledge at the end of your report that there is a problem with the NOAA Budget Handbook, Chapter 2, Section 3 (June 30, 1994)(Handbook). This section of the Handbook covers interagency agreements, but does not distinguish between types of interagency agreements, such as Joint

Project Agreements or Economy Act Agreements. By not making these distinctions, persons following the guidance in this section of the Handbook most like will prepare agreements that are deficient and that our office will require to be redrafted. We think this section of the Handbook should be revised to remedy the very problem you have identified.

In several places earlier in your report, you reference this authority as if it is well-written and should be followed. We think that you should examine your report to make sure that your approach is consistent with your finding that this authority is problematic.

We think it is important to be clear about the problems in these authorities so that corrective actions may be taken and to help alleviate any confusion while various parts of NOAA are developing guidelines.

7. Confusion Regarding the Term "Memorandum of Understanding/Agreement".  
Our office has learned that there is a lot of confusion as to what a "Memorandum of Understanding/Agreement" is. The current draft of your report also reflects confusion regarding this term. The same problem exists with regard to the term "unfunded agreement."

On p. 1 of your report you state the "[i]nteragency and other special agreement are mechanisms for federal agencies to define terms for performing work for others (reimbursable agreements), acquiring work from others (obligation agreements), or coordinating complementary programs without the transfer of funds (memoranda of understanding or agreement)." This statement is legally inaccurate. The term "Memorandum of Understanding/Agreement" is a generic term that means nothing more than "agreement." A memorandum of understanding or agreement may be used for reimbursable work and to acquire work from others.

Unless changed, we fear your report will continue the confusion which already exists at the Department regarding what an MOU/A is. This confusion has consequences in that employees often treat a document based solely on what it is called. In order to keep better track of agreements and to make subsequent IG inspections more meaningful, this confusion needs to be corrected. Your report can serve to help clear up this problem. Therefore, we would ask that you revise the report with this problem in mind.

We do, however, agree that the NWS guidelines should be revised to reflect more clearly (1) which agreements need legal review and (2) the fact that it is the responsibility of our office to provide clearance of such agreements. Furthermore, the guidelines should be revised to "clear up" the concept of "unfunded agreements" which we reference in our response to Draft Inspection Report No. IPE-10418.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Office of Inspector General**  
Washington, D.C. 20230

March 31, 1999

MEMORANDUM FOR: Raymond G. Kammer  
Director  
National Institute of Standards and Technology

FROM: Johnnie E. Frazier  
Acting Inspector General

SUBJECT: *National Standard Reference Data System Program*  
*Award Process Promotes Merit-Based Decisions*  
*CFDA No. 11.603*  
Final Audit Report No. DEN-10962-9-0001

The Office of Inspector General has completed a performance audit of the National Institute of Standards and Technology's solicitation, review, and selection process for its discretionary financial assistance awards under the National Standard Reference Data System Program, classified as No. 11.603 in the *Catalog of Federal Domestic Assistance*, for fiscal years 1994 and 1997. The final report is attached. The executive summary of the report is on page i and recommendations for NIST's action are on page 10.

NIST agreed with the findings and recommendations in our draft audit report and will implement our recommendations in any future award competitions. NIST's response is summarized in the executive summary, and we have attached the complete response as an appendix to the report.

Please provide your audit action plan addressing the recommendations within 60 calendar days, in accordance with Department Administrative Order 213-5. The plan should be in the format specified in Exhibit 7 of the DAO. Should you have any questions regarding the preparation of the audit action plan, please contact William R. Suhre, Regional Inspector General for Audits, at (303) 312-7650.

We appreciate the cooperation extended by your staff during our audit.

Attachment

cc (w/att): Dr. John Rumble, Chief, Standard Reference Data Program, NIST  
Marilyn Khan, NIST Audit Liaison  
Linda J. Bilmes, Acting Chief Financial Officer and  
Assistant Secretary for Administration  
Susan Sutherland, Acting Director, Office of Executive Budgeting and  
Assistance Management

***U.S. DEPARTMENT OF COMMERCE***  
***Office of Inspector General***

---



***NATIONAL INSTITUTE OF  
STANDARDS AND TECHNOLOGY***

*National Standard Reference Data System Program  
Award Process Promotes Merit-Based Decisions  
CFDA No. 11.603*

*Audit Report No. DEN-10962-9-0001 / March 1999*

*Office of Audits, Denver Regional Office*



## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	4
FINDINGS AND RECOMMENDATIONS .....	6
I. NIST Developed Appropriate Evaluation Criteria .....	6
II. Solicitation Process Needs Improvement .....	7
A. Multiple funding instruments were referenced in <i>Federal Register</i> notice .....	7
B. <i>Federal Register</i> notices were not published annually .....	8
III. Review Process Should Be Enhanced .....	8
A. Reviews were not adequately documented .....	8
B. Outside reviewers could enhance independence and objectivity .....	9
IV. Selections Process Was Proper .....	9
V. Award Renewal Procedures Were Not Examined .....	10
VI. Recommendations .....	10
NIST's Response to the Draft Audit Report .....	10
APPENDIX I - NIST Procedures for Solicitation, Review, and Selection of Awards	
APPENDIX II - NIST's Complete Response to the Draft Audit Report	



## EXECUTIVE SUMMARY

The Office of Inspector General conducted an audit of the fiscal year 1997 criteria, procedures, and practices for soliciting, reviewing, and selecting applications for financial assistance under the National Institute of Standards and Technology's (NIST) National Standard Reference Data System Program (NSRDS), classified as No. 11.603 in the *Catalog of Federal Domestic Assistance*. The audit was conducted as part of a Department-wide review of Commerce's discretionary financial assistance programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation.

Discretionary financial assistance programs are those programs for which federal agencies have the authority to independently determine the recipients and funding levels of awards. These programs involve a significant portion of the Commerce Department's budget and operations, approximately \$1 billion annually.

The NSRDS program provides financial assistance to academic institutions, nonfederal agencies, and independent and industrial laboratories. The major aim of the NSRDS program is to provide critically evaluated numerical data to the scientific and technical community in a convenient and accessible form. In fiscal year 1997, NSRDS processed only one award action – a \$57,896 renewal of a cooperative agreement initially awarded on a competitive basis in 1994. Since NIST did not conduct a competition for new awards in fiscal year 1997, we focused our attention on the fiscal year 1994 competition procedures and practices. This was NIST's most recent competition for NSRDS financial assistance. NIST does not anticipate conducting another NSRDS competition in the foreseeable future.

We examined NIST's criteria, procedures and practices for the solicitation, review, and selection of NSRDS awards. We found minor deficiencies in the solicitation and review processes, but, in general, NIST's criteria, procedures and practices were adequate to support merit-based funding decisions and met the Department's current minimum requirements. Specifically, our audit disclosed that NIST:

- Developed appropriate merit-based criteria for evaluating NSRDS applications (see page 6).
- Failed to comply with departmental guidance by inappropriately identifying two types of funding instruments in its 1994 NSRDS solicitation notice (see page 7).
- Did not publish annual program notices in the *Federal Register*. Although departmental guidance requires annual notices announcing the availability of funds and specifying the selection criteria and process, we do not believe NIST's failure to publish notices harmed potential applicants because new applications were neither solicited nor funded (see page 8).

- Failed to maintain written records of the findings of one of three proposal evaluators. Although NIST complied with departmental guidance that requires at least three proposal evaluators, the written record contained the findings of only two evaluators (see page 8).
- Could enhance the independence and objectivity of future competitions by inviting proposal reviewers from outside NIST and the Department to participate (see page 9).
- Followed adequate procedures and practices for selecting awardees (see page 9).

With only one award renewal on which to base an audit, we did not examine NIST's renewal procedures.

We recommend that the Chief, Standard Reference Data Program, ensure that:

- Any future NSRDS solicitation notices identify only one type of funding instrument.
- Under any future NSRDS competitions, all proposal evaluators' findings are documented and serve as the basis for selection.
- NIST enhances the independence and objectivity of any future NSRDS competitions by inviting reviewers from outside NIST and the Department in the evaluation of applications.

Our recommendations appear on page 10.

NIST agreed with the findings and recommendations in our draft report and will implement our recommendations in any future award competitions. We have included a copy of NIST's complete response as Appendix II.

## INTRODUCTION

The National Institute of Standards and Technology's (NIST) primary mission is to promote U.S. economic growth by working with industry to develop and apply technology, measurements, and standards. To accomplish a portion of its mission, NIST administers the National Standard Reference Data System (NSRDS) program, described in the *Catalog of Federal Domestic Assistance* (CFDA) as No. 11.603. The program's objectives, as stated in the CFDA, are "To make evaluated scientific and technical data readily available to scientists, engineers, and the general public."

The Standard Reference Data Act (15 U.S.C., Sec. 290) authorized and directed the Secretary of Commerce "[t]o provide or arrange for the collection, compilation, critical evaluation, publication, and dissemination of standard reference data." Under the NSRDS program, NIST offers grants and cooperative agreements to academic institutions, nonfederal agencies, and independent and industrial laboratories. The major aim of the NSRDS program is to provide critically evaluated numerical data to the scientific and technical community in a convenient and accessible form.

In fiscal year 1997, NSRDS processed only one award action – a \$57,896 renewal of a cooperative agreement initially awarded on a competitive basis in 1994. NIST conducted its most recent NSRDS award competition in fiscal year 1994. NIST received and evaluated ten proposals, requesting a total of \$302,881 in first-year funding, in response to its 1994 solicitation notice. NIST selected four proposals, totaling \$141,381, to receive NSRDS funding. NIST does not anticipate conducting another NSRDS competition in the foreseeable future.

Discretionary assistance programs are those for which federal agency officials have the authority to decide (1) which eligible applicants will receive awards, and (2) how much will be awarded. Technically, all Commerce financial assistance programs are discretionary, rather than entitlement programs. However, the authorizing legislation for the programs provides for varying degrees of discretion in making awards. The use of competitive selection procedures is generally recognized as the most effective method of ensuring that financial assistance awards are made on the basis of merit. One of the primary purposes of the Federal Grant and Cooperative Agreement Act (31 U.S.C. §6301 et seq) is to encourage competition in the award of federal financial assistance to the maximum extent practicable in order to fairly and objectively identify and fund, based on merit, the best possible projects proposed by applicants, and thereby more effectively achieve program objectives.

The Office of Management and Budget (OMB) has issued guidelines on administering competition-based financial assistance programs for use by federal agencies. An interagency study group, convened in 1979 by OMB to examine competition in financial assistance programs, determined that financial assistance award processes, to ensure effective competition, should include three basic elements. These elements, which were discussed in OMB's June 1980 report, *Managing Federal Assistance in the 1980's*, and are still applicable, include:

- Widespread solicitation of eligible applicants and disclosure of essential application and program information in written solicitations;

- Independent application reviews that consistently apply written program evaluation criteria; and
- Written justifications for award decisions that deviate from recommendations made by application reviewers.

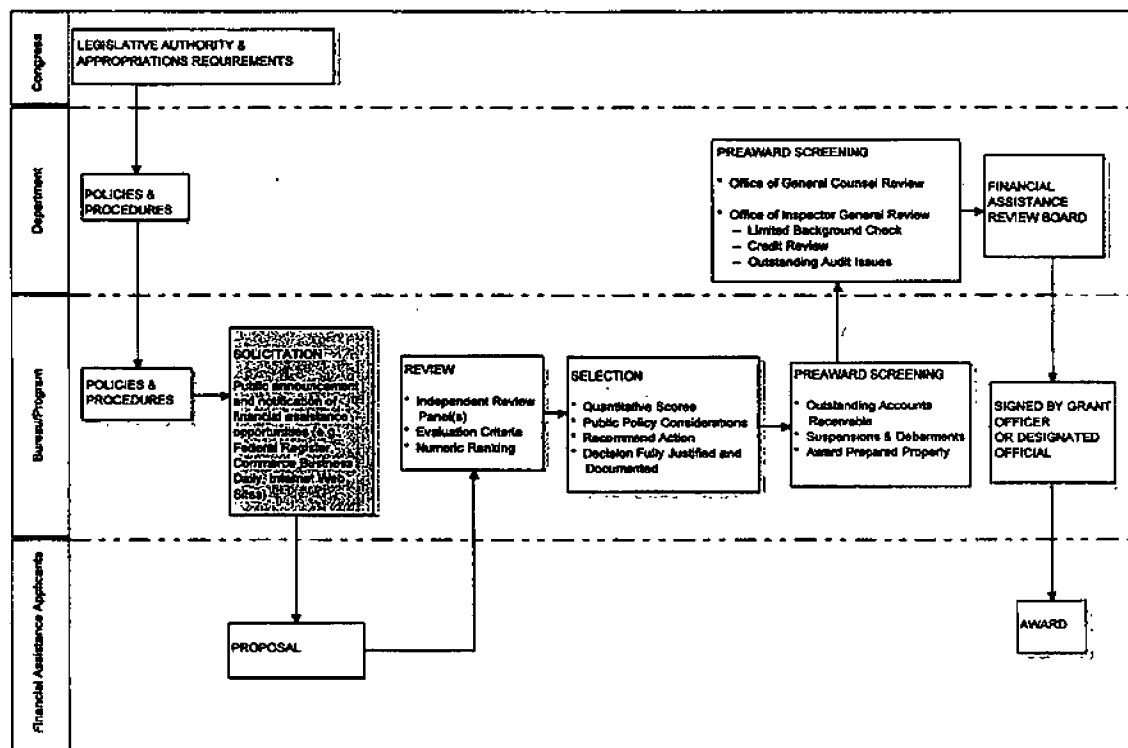
Also, OMB has issued the following circulars which set forth the policies and procedures to be followed in administering federal financial assistance programs:

- OMB Circular A-89, *Federal Domestic Program Information*, implements the Federal Program Information Act (P.L. 95-220) requiring agencies to systematically and periodically collect and distribute current information to the public on federal domestic assistance programs, which is accomplished through the semiannual publication of the *Catalog of Federal Domestic Assistance*.
- OMB Circular A-102, *Grants and Cooperative Agreements with State and Local Governments*, requires agencies to provide the public with advance notice in the *Federal Register*, or by other appropriate means, of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute. Under A-102, when time permits, an agency must provide the public with an opportunity to comment on funding priorities. Finally, A-102 requires all grant awards over \$25,000 to be reviewed for consistency with agency priorities by a policy level official.
- OMB Circular A-110, *Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, requires agencies to provide the public with advance notice of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute.
- OMB Circular A-123, *Management Accountability and Control*, implements the Federal Managers Financial Integrity Act (P.L. 97-255), requiring agencies to establish management controls for federal programs and operations, including financial assistance programs, that provide reasonable assurance that activities are effectively and efficiently managed to achieve agency goals.

Commerce has relied upon these guidelines and circulars in developing and issuing policies and procedures for its discretionary funding programs. Department Administrative Order (DAO) 203-26, *Department of Commerce Grants Administration*, requires that (1) all Commerce discretionary funding grant awards be made on the basis of competitive reviews unless a special waiver is obtained, (2) competitive review processes meet minimum standards outlined in the DAO, and (3) all Commerce agencies publish, at least annually, a notice in the *Federal Register* announcing the availability of funds, soliciting award applications, and specifying the criteria and process to be used in reviewing and selecting applications for funding.

The following chart depicts the process and controls for the solicitation, evaluation, and selection of financial assistance awards as set forth in DAO 203-26. The processes we reviewed during our audit are color coded for this chart and the NIST process chart located in Appendix I.

### Department of Commerce Financial Assistance Awards Process



## PURPOSE AND SCOPE

This audit was conducted as part of a comprehensive review of the Department of Commerce's discretionary funding programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation. The Chairman requested that the Inspectors General of the Departments of Commerce and Transportation and the National Science Foundation review the discretionary funding programs of their respective agencies to assess the manner in which discretionary funding decisions are made. More specifically, the Chairman requested that each IG review and report on the criteria developed, either statutorily or administratively, to guide agency officials in making discretionary spending decisions, and on the extent to which the criteria are appropriately applied.

We are conducting our Department-wide review in two phases: a survey phase (completed) and an individual program audit phase (ongoing). During the survey phase, we identified and examined the body of laws, regulations, and other guidance applicable to the administration of federal financial assistance programs. We also examined the authorizing legislation for each Commerce financial assistance program and classified each program as either a "full discretion" program or a "limited discretion" program, based on the extent to which the legislation limits the agency's authority to independently determine the recipients and funding levels of the awards made under the program. Finally, we examined fiscal year 1997 appropriations legislation to identify all legislatively mandated projects.

During the second phase of our review, we are conducting individual audits of the award solicitation, review, and selection processes of each program we have classified as a "full discretion" program, including the NIST NSRDS program. We are evaluating the adequacy of each program's established award procedures. For those programs with procedures deemed to be adequate, we are ascertaining whether they were followed in making awards in fiscal year 1997. Finally, we are examining the legislatively mandated projects identified for each program and determining their significance and impact on fiscal year 1997 award decisions. We will issue individual reports, with any appropriate recommendations on each program, followed by a capping report summarizing the results of the individual audits and providing recommendations for the Department and/or its bureaus.

On July 21, 1998, the Acting Inspector General and the Chief Financial Officer and Assistant Secretary for Administration testified before the Senate Commerce, Science, and Transportation Committee on the Department's discretionary funding programs. The Acting IG reported on the results of the survey phase of the OIG's review, and discussed some of the preliminary observations from the individual program audits.

This performance audit covered the single award renewal processed by NIST during fiscal year 1997, and the most recent NSRDS competition, held during fiscal year 1994. There were no legislatively mandated awards under this program in fiscal years 1994 or 1997.

To respond to the Chairman's request, we:

- Reviewed the authorizing legislation and information summarized in the CFDA to identify criteria for funding decisions.
- Reviewed Department and NIST policies and procedures for soliciting, reviewing, and selecting recipients for awards (see Appendix I for a flowchart of the process). We reviewed NIST's solicitation, review, and selection process for NSRDS awards, and assessed whether it was in accordance with DAO 203-26, *Department of Commerce Grants Administration* and Office of Federal Assistance Financial Assistance Notice No. 17, *Department of Commerce Guidelines for the Preparation of Federal Register Notices Announcing the Availability of Financial Assistance Funds -- Requests for Applications*.
- Compared the procedures with NIST's award practices for the fiscal year 1994 and 1997 award actions to determine if the process contained adequate internal controls to provide for competitive, merit-based awards.
- Interviewed NSRDS program office officials concerning NIST's solicitation, review, and selection procedures.

We did not rely on computer-based data supplied by NIST and the Department's Office of Executive Assistance Management, and cited in the report, as a basis for our audit findings and recommendations. Consequently, we did not conduct tests of either the reliability of the data or the controls over the computer-based system that produced the data.

We conducted the audit fieldwork in March 1998 at NIST's Standard Reference Data System Program Office, in Gaithersburg, Maryland. We conducted the audit in accordance with generally accepted government auditing standards, and under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

## FINDINGS AND RECOMMENDATIONS

We found that NIST established criteria and processes for soliciting and reviewing NSRDS applicants and selecting NSRDS awardees which were designed to result in merit-based awards. Also, NIST's procedures and practices for the solicitation, review, and selection of NSRDS award recipients generally complied with the Department's award procedures. Although we found that NIST's solicitation notice for the 1994 competition, as published in the *Federal Register*, failed to comply with the letter departmental guidance, the deviation was minor and had no impact on award selections. We also found that NIST did not publish annual *Federal Register* notices for the NSRDS program, as required by the Department, after the 1994 competition. However, we do not believe that this omission harmed the public, as the NSRDS program did not solicit or fund new applications in 1997.

In addition, we found that NIST did not maintain written records of the findings of one of three proposal evaluators for the 1994 competition. The NSRDS Program Chief conceded that NIST erred by not maintaining records of all evaluator findings and assured us during the audit that if NIST conducts future NSRDS competitions, all evaluator findings will be documented and serve as the basis for award selections. Finally, we believe that the independence of any future competitions could be enhanced by inviting reviewers from outside NIST and the Department to participate.

We did not examine NIST's procedures and practices for renewals of NSRDS awards. We do not believe that the single 1997 award renewal action provided an adequate basis on which to evaluate NIST's renewal process. Therefore, we do not express an opinion on the award renewal process.

### I. NIST Developed Appropriate Evaluation Criteria

NIST developed and published merit-based criteria for evaluating applications for fiscal year 1994 awards under the NSRDS program. The fiscal year 1994 competition was the most recent under the NSRDS program. NIST published a "Notice of Availability of Funds" for the NSRDS competition in the *Federal Register* on November 18, 1993. The *Federal Register* notice listed the proposal evaluation and scoring criteria, and stated that, "[a]wards will be made based on the high score and availability of funds." Each proposal would be assigned a numerical score of 0 to 205, based on the following criteria, weighted as indicated.

- |      |  |               |
|------|--|---------------|
| a.   | Need for data activity                                     | 0 - 20 points |
| b.   | Complementary to existing or planned<br>NIST data activity | 0 - 10 points |
| c.   | Related to priority list for SRD program                   | 0 - 40 points |
| d.   | Experience of proposing group with<br>respect to:          |               |
| i.   | previous data evaluation – general                         | 0 - 30 points |
| ii.  | previous data evaluation in this area                      | 0 - 30 points |
| iii. | experience in computerized<br>databases – general          | 0 - 10 points |
| iv.  | experience in computerized                                 | 0 - 20 points |



databases in this area

e.	Feasibility of completing project in proposed time	0 - 20 points
f.	Technical merit of the proposal	<u>0 - 25 points</u>
	Total	0 - 205 points

We believe that the NSRDS proposal evaluation criteria were designed to result in merit-based awards. Also, NIST's procedures to solicit, review, and select applications for funding, as presented in the flow chart in Appendix I, were adequate to support merit-based awards. However, our review did identify possible improvements in NIST's solicitation and review practices.

## II. Solicitation Process Needs Improvement

In assessing NIST's solicitation process for the 1994 competition, we found two minor deficiencies: (1) the agency failed to comply with departmental guidance by inappropriately identifying two types of funding instruments in its solicitation notice, and (2) it did not publish annual program notices in the *Federal Register*.

### A. Multiple funding instruments were referenced in *Federal Register* notice

Upon examining the NSRDS solicitation notice to determine whether it complied with the requirements established by Department Administrative Order (DAO) 203-26, Section 4.02b, and Financial Assistance Notice No. 17, Section .03, we found that, in one minor instance, it failed to do so. Specifically, the *Federal Register* notice stated that NIST would award either grants or cooperative agreements. However, the deviation had no impact on award selections.

The above-noted sections of the DAO and the Financial Assistance Notice both require solicitation notices for Commerce discretionary funding programs to state the type of funding instrument planned. Financial Assistance Notice No. 17 further provides that, "[o]nly one type of funding instrument should be identified in the notice."

Although the solicitation notice identified both grants and cooperative agreements, and even specified the level of NIST involvement should cooperative agreements be awarded, the agency expected the 1994 awards to be grants. The NSRDS Program Chief indicated that the program "almost never" awards cooperative agreements. We did find that the one award still in effect during our 1997 audit period was a cooperative agreement. However, the chief stated that NIST intended the award to be a grant, but that a typographical error on the award form resulted in a cooperative agreement being issued.

NIST agreed with our finding and stated that if any future NSRDS competitions are held, the solicitation notice will state only one type of intended funding instrument.

**B. Federal Register notices were not published annually**

NIST did not publish annual notices for the NSRDS program in the *Federal Register* after the 1994 competition. Although such notices are a requirement under the DAO and Financial Assistance Notice No. 17, it does not appear that NIST's failure to publish notices for the NSRDS program harmed potential applicants because no new applications were solicited or funded.

DAO 203-26, Section 4.02b, states, "[t]o inform the interested public, each organization unit shall publish at least annually a notice in the *Federal Register* which includes basic information for each discretionary grant program." For example, notices must include:

- The amount and availability of funds.
- The type of funding instrument planned to be used.
- The application and/or precap application due date or closing date, if any.
- The selection process and procedures.
- The selection criteria and weighting factors, if applicable.

However, based on the minimum requirements for each annual notice, as set forth in the DAO, it appears that annual notices are only required in the event that new applications are being solicited. If no applications are being solicited, then the information set forth above is irrelevant.

**III. Review Process Should Be Enhanced**

Reviewers independently assigned numerical scores to the applications. However, we have minor concerns with NIST's documentation of the NSRDS proposal review process, and we believe that NIST could enhance the independence and objectivity of any future reviews by inviting outside reviewers to participate.

**A. Reviews were not adequately documented**

Although departmental guidance requires at least three evaluators to review financial assistance applications, we found documentation for only two reviewers' scores in support of the 1994 NSRDS selections. This occurred because NIST failed to maintain written documentation of the scores assigned by a third evaluator of the NSRDS applications.

DAO 203-26, Section 4.02h.1.(d), states that the minimum requirements for a competitive review process include "... at least three persons in each review panel ...". In addition to the departmental requirement for a minimum of three reviewers, the *Federal Register* notice for the fiscal year 1994 NSRDS competition stated, "Proposals will be evaluated for technical merit by *at least three professionals* from NIST, the Standard Reference Data Program, or technical experts from other government agencies or the community at large." (Emphasis added.)

We asked the NSRDS program office to explain why only two proposal evaluators' scores were documented when the selection criteria required at least three evaluators. The current NSRDS Program Chief, who in his prior position was one of the three evaluators responsible for reviewing the 1994 NSRDS competition proposals, explained that he was unable to devote much time to the review process due to other work requirements. In fact, his review time was limited to one weekend. He communicated the results of his analyses to the other members of the review panel verbally, or by handwritten notes. Although he claims that he "had no substantial disagreements with the other reviewers," we found no mention of his comments in the selection documents provided by NIST. The composite numerical scores used by NIST to make its funding decisions reflect only the sum of the scores from the other two evaluators.

While NIST may have actually used three evaluators for the 1994 NSRDS competition, the fact that the written record reflects only two evaluators' scores casts a shadow over the review process. The selection criteria published in the *Federal Register* notice provided that each proposal would not only be reviewed, but also scored by three evaluators. NIST unnecessarily exposed itself to criticism by departing from the stated review procedure and, in so doing, subjected itself to liability if one of the non-winning proposers had protested NIST's selections. In such an instance, NIST would not have been able to document that it followed the selection process described in the *Federal Register*. Even though the potential for a protest of the 1994 NSRDS selections has long passed, NIST should strive for strict adherence to published selection criteria in all financial assistance programs in order to avoid any appearance of impropriety. When it became clear that the third evaluator had a conflicting work assignment that prevented him from providing the level of proposal evaluation and scoring duties outlined in the *Federal Register*, NIST should have appointed another evaluator to take his place.

The NSRDS Program Chief assured us that, if NIST conducts future NSRDS competitions, all required evaluators' findings will be documented and serve as the basis for award selections.

**B. Outside reviewers could enhance independence and objectivity**

Although the November 1993 *Federal Register* notice provided for the use of outside reviewers, all three proposal evaluators on the 1994 NSRDS competition were NIST employees. While NIST complied with the minimum requirement that each proposal is to be reviewed by at least three evaluators, we believe that NIST could enhance the independence and objectivity of any future NSRDS competitions by inviting reviewers from outside NIST and the Department to participate in the evaluation process.

**IV. Selection Process Was Proper**

NIST followed written procedures in the selection of NSRDS recipients for the 1994 competition. The *Federal Register* notice stated that the highest-scoring proposals would be selected for funding, based on availability of funds. The NSRDS Program Chief, serving as the selection official, selected the four highest-scoring proposals to receive funding. Although we have concerns with NIST's proposal review and scoring process, the selection process for NSRDS awards was proper, based on the data provided to the program chief.

## **V. Award Renewal Procedures Were Not Examined**

With only one award renewal action in fiscal year 1997, we did not examine NIST's procedures for determining whether recipients qualify for renewals of financial assistance awards. The NSRDS Program Chief stated that the best measure of a project's performance is an ongoing need in the research community for the data produced under the project. The chief said that the remaining 1994 NSRDS project continues to produce needed data. NIST plans to fund the project as long as funds are available and the data are useful to researchers.

## **VI. Recommendations**

We recommend that the Chief, Standard Reference Data Program, ensure that:

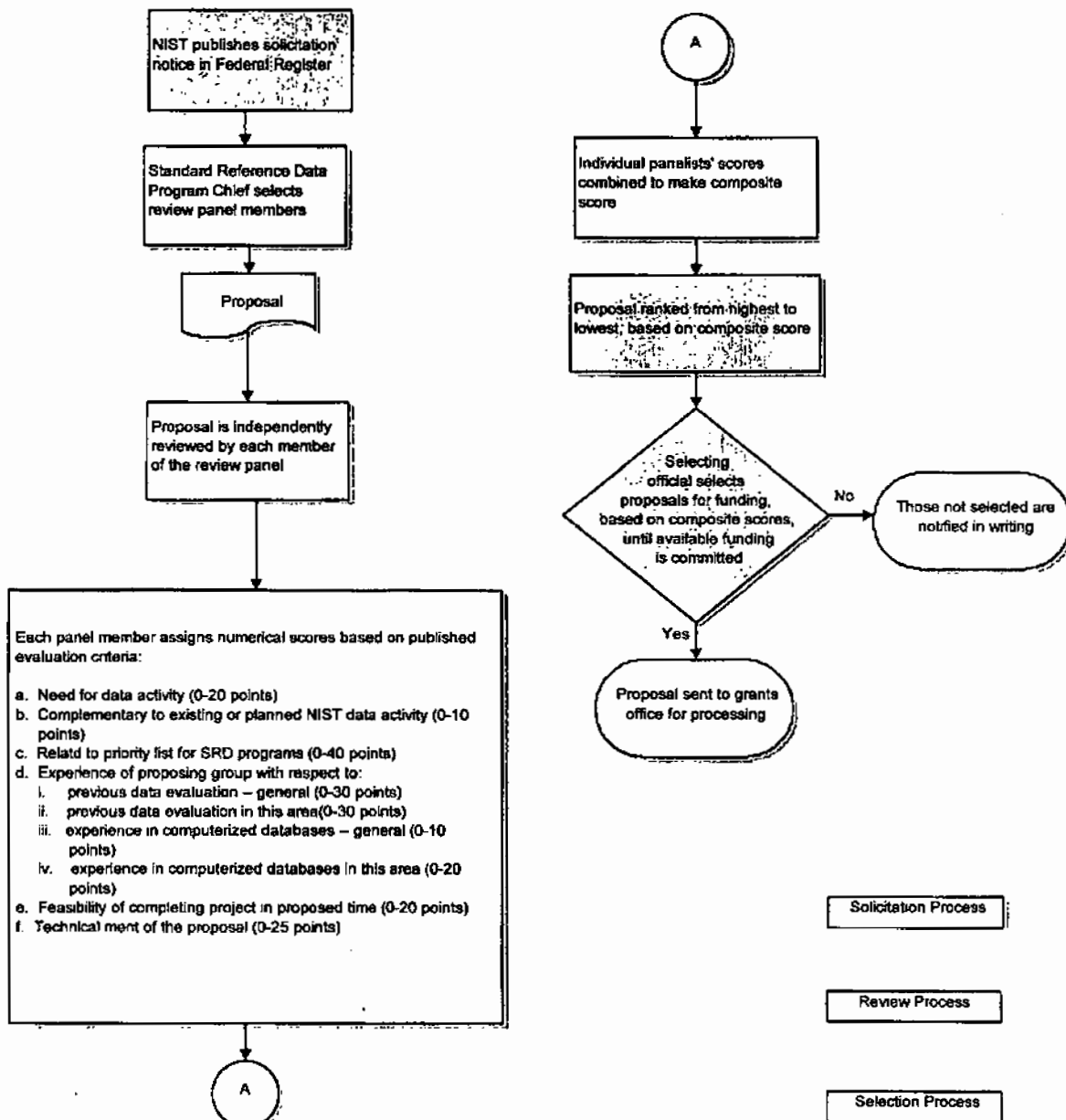
- Any future NSRDS solicitation notices identify only one type of funding instrument.
- Under any future NSRDS competition, all proposal evaluators' findings are documented and serve as the basis for selection.
- NIST enhances the independence and objectivity of any future NSRDS competitions by involving reviewers from outside NIST and the Department in the evaluation of applications.

## **NIST's Response to the Draft Audit Report**

NIST agreed with the findings and recommendations in our report. Although there are no current plans to solicit applications for NSRDS funding, NIST will implement the recommendations in the event of future award competitions. NIST's response is included in its entirety as Appendix II.

Appendix I

NIST PROCEDURES FOR SOLICITATION,  
REVIEW, AND SELECTION OF AWARDS



MAR 17 1999



Appendix II

**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899-

MEMORANDUM FOR George E. Ross

Assistant Inspector General for Auditing

From: John Rumble, Chief  
Standard Reference Data Program

Subject: National Standard Reference Data System  
Program Awards Were Merit-Based  
CFDA No. 11.603  
Draft Audit Report No. DEN-10962-9-XXXX

I have received and reviewed the above named Audit Report and accept its findings with the following notes.

**Finding I. NIST Developed Appropriate Evaluation Criteria**

No further comment.

**Finding II. Solicitation Process Needs Improvement**

**Subfinding A. Multiple funding instruments were referenced in *Federal Register* notice**

No further comment.

**Subfinding B. *Federal Register* notices were not published annually**

Because no applications were being solicited, we believe our decision not to publish an annual *Federal Register* notice was proper and good practice.

**Finding III. Review Process Should Be Enhanced**

**Subfinding A. Reviews were not adequately documented**

Three reviews, as specified in the 1994 *Federal Register* notice, were completed. No copy of one review (executed by myself) exists today, most likely because of (1) normal consolidation of files undertaken during a physical move in 1995 or (2) consolidation of files of the leader of the Grant Solicitation process following her death in 1996.

Comments about the time spent on the review are irrelevant, as the reviewer had more than 13 years experience in similar reviewing, and the time allotted to the small number (10) of proposals was more than adequate.

**Subfinding B. Outside reviewers could enhance independence and objectivity**

When needed in the past, the NIST Standard Reference Program has made significant use of outside reviewers. The small number of proposals and the familiarity with the subject matter by all three reviewers led to the decision to use only internal reviewers, all of whom maintained independence and objectivity throughout.

**Summary**

The NIST Standard Reference Data Program accepts the three recommendations as set forth in the Audit and will be conscious of meeting all guidelines and regulations in the event of future Grant Solicitations

cc Raymond Kammer

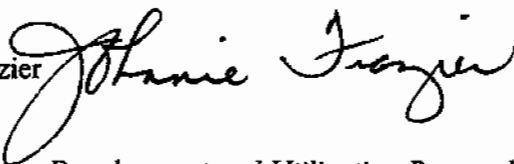
**NIST**



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

September 30, 1999

MEMORANDUM FOR: Dr. D. James Baker  
Under Secretary for Oceans and Atmosphere

FROM: Johnnie E. Frazier 

SUBJECT: *NMFS's Fisheries Development and Utilization Research  
and Development Grants and Cooperative Agreements  
Program Awards Were Merit-Based*  
CFDA No. 11.427  
Final Audit Report No. STL-10950-9-0001

The Office of Inspector General has completed a performance audit of the National Oceanic and Atmospheric Administration's criteria, procedures, and practices for soliciting, reviewing, and selecting applications for financial assistance under the Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program, classified as No. 11.427 in the *Catalog of Federal Assistance*, for fiscal year 1997. The final audit report is attached. The executive summary of the report is on page i; and recommendations for your action are on page 19.

Our review concluded that NMFS's criteria, procedures, and practices for the solicitation, review, and selection of awards under the program met the Department's minimum requirements contained in Departmental Administrative Order 203-26 and were generally adequate. However, review practices did not always follow procedures and selection procedures need to be improved by requiring additional documentation and justification for certain award decisions. In addition, NMFS could have taken actions that would have resulted in relying more extensively on the competitive program to address research needs.

In response to our draft audit report, NOAA agreed with the recommendations and believes that the implementation of the recommendations will enhance the overall effectiveness of the program. NOAA's response is summarized in the executive summary and in the body of the report. We have also attached NOAA's response, in its entirety, as an appendix to the report.

Please provide your audit action plan addressing the recommendations within 60 calendar days, in accordance with Department Administrative Order 213-5. The plan should be in the format specified in Exhibit 7 of the DAO. Should you have any questions regarding the preparation of the audit action plan, please contact me on 482-4661 or Ray McIntosh, Regional Inspector General, Seattle Regional Office, on (206) 220-7970.

We appreciate the cooperation and courtesies extended to us by Department of Commerce personnel during the audit.

Attachment

cc: Scott Gudes, Deputy Under Secretary for Oceans and Atmosphere  
Penelope D. Dalton, Assistant Administrator for Fisheries, NMFS  
Paul F. Roberts, Chief Financial Officer/Chief Administrative Officer, NOAA  
Barbara Martin, Chief, Audit and Internal Control Staff Office, NOAA  
Linda J. Bilmes, Acting Chief Financial Officer and Assistant Secretary for  
Administration  
Sonya G. Stewart, Director, Office of Executive Budgeting and Assistance  
Management  
Susan Sutherland, Acting Director, Office of Executive Assistance Management



**U.S. DEPARTMENT OF COMMERCE**  
**Office of Inspector General**

---



***NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION***

*NMFS's Fisheries Development and  
Utilization Research and Development  
Grants and Cooperative Agreements  
Program Awards Were Merit-Based  
CFDA No. 11.427*

*Audit Report No. STL-10950-9-0001/September 1999*

*Office of Audits, Seattle Regional Office*



## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	5
FINDINGS AND RECOMMENDATIONS .....	7
I.    The S-K Program Established Merit-Based Evaluation Criteria .....	7
II.   The S-K Program Solicitation Process Exceeded DOC Requirements and Obtained a Nationwide Response .....	10
III.  Selection Decisions That Deviated from Application Rankings Were Not Adequately Justified .....	10
IV.  NMFS Could Have Relied More Extensively On the Competitive S-K Program to Address Research Needs .....	13
A. Published priorities could have been more specific .....	14
B. NMFS could have issued a revised solicitation notice .....	15
C. National program was used to transfer funds to a pre-determined recipient.....	15
D. National program was used to fund an unfunded competitive application .....	16
E. National program funds were generally spent noncompetitively and at least \$170,000 was not supported.....	17
V.   Conclusions.....	17
NOAA Response.....	18
OIG Comments.....	18
VI.  Recommendations .....	19
APPENDIX I - S-K Competitive Procedures for Solicitation, Review, and Selection of Awards	
APPENDIX II - S-K Competitive Program Awards for Fiscal Year 1997	
APPENDIX III - S-K National Program Projects for Fiscal Year 1997	
Appendix IV - NOAA Response to Draft Report	

## EXECUTIVE SUMMARY

The Office of Inspector General conducted an audit of the fiscal year 1997 criteria, procedures, and practices for soliciting, reviewing, and selecting applications for financial assistance under the National Oceanic and Atmospheric Administration's National Marine Fisheries Service's (NMFS) Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program, classified as No. 11.427 in the *Catalog of Federal Domestic Assistance*. The program is more commonly referred to as the Saltonstall-Kennedy Grant Program (S-K Program). The audit was conducted as part of a Department-wide review of Commerce's discretionary financial assistance program initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation.

Discretionary financial assistance programs are those programs for which federal agencies have the authority to independently determine the recipients and funding levels of awards. Collectively, these programs involve a significant portion of the Commerce Department's budget and operations, approximately \$1 billion annually.

Through the S-K Program, NMFS provides financial assistance to individuals or groups, including state and local governments, except employees of federal agencies and fishery management councils and their employees. Assistance is provided for research and development projects that address aspects of U.S. fisheries, including harvesting, processing, marketing, and associated infrastructure. However, projects that primarily involve business start-up or infrastructure development are not eligible for assistance.

In addition, NMFS funded 25 projects under the S-K national program, totaling \$4,048,977 (see page 13). Under the S-K Act, section 713c-3 (d), NMFS shall implement what is referred to as an S-K national program if applications received through the S-K competitive process do not adequately address program goals and funding priorities, as deemed appropriate by the Secretary. NMFS used \$3.4 million to fund 23 projects that were proposed by NMFS and carried out internally through contracts, purchase orders, fund transfers, and cooperative agreements. NMFS transferred \$0.3 million for a pre-determined recipient that NMFS states it was directed to fund. NMFS used an additional \$0.3 million in a questionable procurement action to fund a project proposal that had been rejected under the competitive S-K Program, reworked with NMFS assistance, and resubmitted under a competitive contract solicitation.

NMFS used applications received in response to its fiscal year 1996 solicitation to make fiscal year 1997 awards. In its fiscal year 1996 solicitation NMFS listed aquaculture, bycatch, fisheries management, fisheries utilization, and product quality and safety as funding priorities. The program received 339 acceptable applications in response to the FY 1996 solicitation, and made 75 awards in fiscal year 1997, including 49 new grants, 1 continuation grant, and 25 new cooperative agreements, totaling \$8,334,950.

We found that NMFS's criteria, procedures, and practices for the solicitation, review, and selection of S-K Program awards met the Department's minimum requirements contained in Departmental Administrative Order 203-26 and were generally adequate. The S-K Program has a set of criteria that are merit-based and appropriate for the selection of applications for funding. However, review practices did not always follow procedures and the selection procedures need to be improved by requiring additional documentation and justification for certain award decisions. Specifically, NMFS:

- Used merit-based evaluation criteria that were consistent with the objectives of the competitive program to evaluate proposals, as required by Section 4.02a of DAO 203-26. (See page 7.)
- Used a solicitation process that was adequate to obtain a nationwide response, as required by DAO 203-26, Section 4.02b. (See page 10.)
- Did not provide sufficient justification for funding six applications totaling \$722,311 that were ranked lower by application reviewers than applications that were not funded, as required by DAO 203-26, Section 4.02h. (See page 10.)

Although NMFS had the authority to implement a national program under the S-K Program legislation, we think NMFS could have taken actions that would have resulted in relying more extensively on the competitive S-K Program to address research needs. NMFS could have provided more specific research needs and priorities in its competitive program solicitation notice or could have issued a new solicitation notice containing updated needs and priorities. These actions would have resulted in NMFS being in a better position to use the funds competitively and may have resulted in competitive program applications that addressed all of NMFS's fiscal year 1997 research needs and supported the competitive intent of the S-K Program.

Specifically, we found that NMFS:

- Could have relied more extensively on the competitive S-K Program to address research needs. (See page 13.)

We recommend that the Assistant Administrator for Fisheries ensure that:

- Reasons for selecting S-K Program funding applications that are ranked lower than other unfunded applications are thoroughly documented and address independent reviewer concerns with the selected applications as required by DAO 203-26, Section 4.02h.
- NMFS continues to place more emphasis on addressing research needs and priorities competitively.

S-K Program funding priorities are developed and published that are sufficiently detailed to provide the public an opportunity to address NMFS's specific research needs.

Our recommendations appear on page 19.

-----

In response to the draft report, NOAA agreed with the recommendations and believes that implementation of the recommendations will enhance the overall effectiveness of the program. NOAA also had several comments that we either addressed or discussed in the report. NOAA's response is provided as Appendix IV. We concur with NOAA's response to our recommendations.

## INTRODUCTION

The National Oceanic and Atmosphere Administration's (NOAA) mission is to describe and predict changes in the Earth's environment and to conserve and manage wisely the nation's coastal resources. The National Marine Fisheries Service's (NMFS) mission is to provide stewardship of living marine resources for the benefit of the nation through science-based conservation, management, and promotion of the health of the marine environment. NOAA, through NMFS, administers the Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program, more commonly referred to as the Saltonstall-Kennedy Grant Program (S-K Program), classified as No. 11.427 in the *Catalog of Federal Domestic Assistance*. The S-K Program was established by the Saltonstall-Kennedy Act, as amended (15 U.S.C. 713c-3).

This discretionary funding program provides financial assistance to individuals or groups, including state and local governments, except employees of federal agencies and fishery management councils and their employees. Assistance is provided for research and development projects that address aspects of U.S. fisheries, including harvesting, processing, marketing, and associated infrastructure. However, projects that primarily involve business start-up or infrastructure development are not eligible for funding.

The S-K Act, as amended, authorizes the Secretary of Commerce to establish rules and regulations relating to financial assistance awards under the S-K Program. In accordance with the Act, NMFS established such rules for the S-K Program.

Fiscal year 1997 awards under the S-K Program were made in response to a *Federal Register* solicitation, published March 19, 1996. NMFS officials received 340 applications by May 30, 1996. One application was rejected; 339 were forwarded for technical review; and the technical reviews were completed by August 7, 1996. Next, 111 were forwarded to a constituency panel for review, which was completed by October 15, 1996. Seventy-five awards were made for a total of \$8,334,950, with award periods beginning in fiscal year 1997. The awards consisted of 49 new grants, 1 continuation grant, and 25 new cooperative agreements. A list of the awards is provided as Appendix II.

Section 15 U.S.C. 713c-3(d), of the S-K Act states that the Secretary of Commerce shall implement what is referred to as an S-K national program to fund research projects if research needs are not adequately covered by projects funded through the competitive S-K Program process. In fiscal year 1997, NMFS funded another 25 projects for \$4,048,977, separate from the competitive program, under the S-K national program. The projects consisted of research performed both internally and through contracts and cooperative agreements. A list of the projects is provided as Appendix III.

Discretionary assistance programs are those for which federal agency officials have the authority to decide (1) which eligible applicants will receive awards, and (2) how much financial

assistance will be awarded. Competition is generally recognized as the most effective means of ensuring that financial assistance awards are made on the basis of merit. One of the primary purposes of the Federal Grant and Cooperative Agreement Act (31 U.S.C. §6301) is to encourage competition in the award of federal financial assistance to the maximum extent practicable.

The Office of Management and Budget (OMB) has issued guidelines on administering competition-based financial assistance programs for use by federal agencies. An interagency study group, convened in 1979 by OMB to examine competition in financial assistance programs, determined that financial assistance award processes, to ensure effective competition, should include three basic elements. These elements, which were discussed in OMB's June 1980 report, *Managing Federal Assistance in the 1980's*, are still applicable, and include:

- Widespread solicitation of eligible applicants and disclosure of essential application and program information in written solicitations;
- Independent application reviews that consistently apply written program evaluation criteria; and
- Written justifications for award decisions that deviate from recommendations made by application reviewers.

Also, OMB has issued the following circulars which set forth the policies and procedures to be followed in administering federal financial assistance programs:

- OMB Circular A-89, *Federal Domestic Assistance Program Information*, implements the Federal Program Information Act (P.L. 95-220) requiring agencies to systematically and periodically collect and distribute current information to the public on federal domestic assistance programs, which is accomplished through the semiannual publication of the *Catalog of Federal Domestic Assistance*.
- OMB Circulars A-102, *Grants and Cooperative Agreements with State and Local Governments*, requires agencies to provide the public with advance notice in the *Federal Register*, or by other appropriate means, of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute. Under A-102, when time permits, an agency must provide the public with an opportunity to comment on funding priorities. Finally, A-102 requires all grant awards over \$25,000 to be review for consistency with agency priorities by a policy level official.
- OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, requires agencies to provide the public with advance notice of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute.

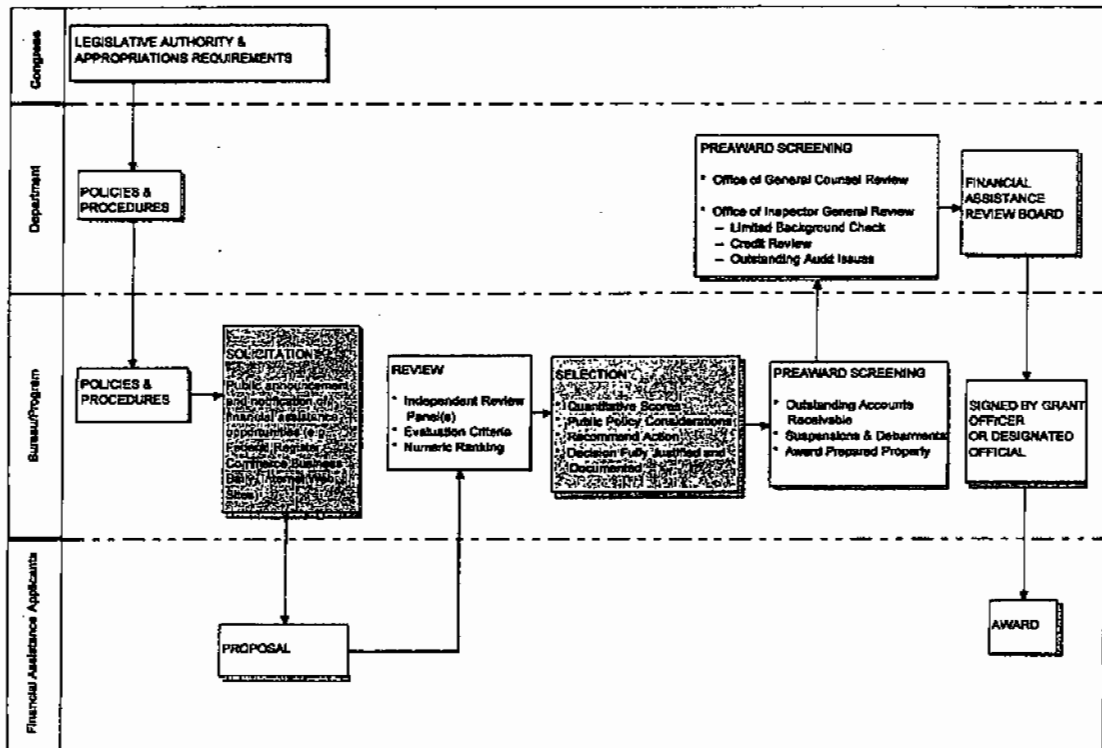
- OMB Circular A-123, *Management Accountability and Control*, implements the Federal Manager's Financial Integrity Act (P.L. 97-255) requiring agencies to establish management controls for federal programs and operations, including financial assistance programs, that provide reasonable assurance that activities are effectively and efficiently managed to achieve agency goals.

Commerce has relied on OMB's guidelines and circulars in developing and issuing policies and procedures for its discretionary funding programs. Department Administrative Order (DAO) 203-26, *Department of Commerce Grants Administration*, requires that (1) all Commerce financial assistance awards be made on the basis of competitive reviews unless a waiver is obtained, (2) competitive review processes meet minimum standards outlined in the DAO, and (3) all Commerce agencies publish, at least annually, a notice in the *Federal Register* announcing the availability of funding, soliciting award applications, and specifying the criteria and the process to be used to review and select applications for funding.

The chart presented on the following page depicts the basic process and controls for the solicitation, evaluation, and selection of financial assistance awards as set forth in DAO 203-26. The processes we reviewed during our audit are color coded for this chart and the NOAA/NMFS process chart located in Appendix I.



### Department of Commerce Financial Assistance Awards Process



## PURPOSE AND SCOPE

This audit was conducted as part of a comprehensive review of the Department of Commerce's discretionary funding programs initiated at the request of the Chairman of the Senate Commerce, Science, and Transportation Committee. The Chairman requested that the Inspectors General of the Departments of Commerce and Transportation and the National Science Foundation review the discretionary funding programs of their respective agencies to assess the manner in which discretionary funding decisions are made. More specifically, the Chairman requested that each IG review and report on the criteria developed, either statutorily or administratively, to guide agency officials in making discretionary spending decisions, and on the extent to which the criteria are appropriately applied.

We are conducting our Department-wide review in two phases: a survey phase and an individual program audit phase. During the survey phase, we identified and examined the body of laws, regulations, and other guidance applicable to the administration of federal financial assistance programs. We also examined the authorizing legislation provided by Department officials for each Commerce financial assistance program and classified each program as either a "full discretion" program or a "limited discretion" program, based on the extent to which the legislation limits the agency's authority to independently determine the recipients and funding levels of the awards made under the program. Finally, we examined the fiscal year 1997 appropriations legislation to identify legislatively mandated awards and reviewed accompanying conference and committee reports to identify projects recommended for funding. No legislatively mandated awards were found.

During the second phase of our review, we are conducting individual audits of the award solicitation, review, and selection processes of each program we have classified as a "full discretion" program, including the S-K Program. We are evaluating the adequacy of each program's established award criteria and procedures for evaluating individual applications. For those programs with procedures deemed to be adequate, we are ascertaining whether they were followed in making awards in fiscal year 1997. For those programs with procedures considered to be inadequate or lacking, we are reviewing how the fiscal year 1997 award decisions were made. Finally, we are examining the legislatively mandated projects identified for each program and determining their significance and impact on fiscal year 1997 award decisions. We plan to issue individual reports, with any appropriate recommendations, on each program, followed by a capping report summarizing the results of the individual audits and providing recommendations for the Department and/or its bureaus.

On July 21, 1998, the Acting Inspector General and the Chief Financial Officer and Assistant Secretary for Administration testified before the Senate Commerce, Science, and Transportation Committee on the Department's discretionary funding programs. The Acting IG reported on the preliminary, survey phase of the OIG review, and discussed some of the preliminary observations from the individual program audits.

This performance audit focused on all awards made during fiscal year 1997 under the S-K Program. Specifically, we:

- Reviewed the program authorization and other information published in the CFDA and provided by NOAA's Office of Legislative Affairs to identify criteria for funding decisions.
- Reviewed policies and procedures for soliciting, reviewing and selecting applications for funding (see Appendix I for flowchart of process). We also reviewed NOAA's *Grants and Cooperative Agreements Manual* as it applied to the solicitation, review, and selection process and assessed whether it was adequate and in accordance with DAO 203-26, *Department of Commerce Grants Administration*, and Office of Federal Assistance Financial Assistance Notice No. 17, *Department of Commerce Guidelines for the Preparation of Federal Register Notices Announcing the Availability of Financial Assistance Funds -- Requests for Applications*.
- Compared NOAA/NMFS's procedures with its practices to determine if the process contained adequate internal controls to provide for competitive, merit-based awards.
- Examined pertinent documents in individual program award files to determine if Departmental and NOAA policies and procedures were followed.
- Interviewed NOAA/NMFS program office officials concerning NOAA/NMFS's solicitation, review, and selection procedures and practices.
- Examined fiscal year 1997 appropriations legislation to identify legislatively mandated projects and accompanying committee and conference reports to identify projects recommended for funding under this program.

We did not rely on computer-based data supplied by NOAA and OEAM as a basis for our audit findings and recommendations. Consequently, we did not conduct tests of either the reliability of the data or the controls over the computer-based system that produced the data.

We performed our audit fieldwork at NMFS's Office of Sustainable Fisheries, Financial Services Division, and NOAA's Grants Management Division in Silver Spring, Maryland, and at NOAA's regional office in Seattle, Washington, from May through July 1998. We conducted the audit in accordance with generally accepted government auditing standards, and under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

## FINDINGS AND RECOMMENDATIONS

We found that NMFS used merit-based criteria in evaluating competitive S-K Program applications. Also, NMFS's procedures for the solicitation, review, and selection of S-K Program awards met the Department's requirements. Each application for a fiscal year 1997 award received an independent, qualified review based on written evaluation criteria. However, we found that (1) six applications totaling \$722,311 that were selected for funding over other unfunded applications with higher independent rankings were not adequately justified, and (2) NMFS could have relied more extensively on the competitive S-K Program to address research needs instead of using \$4.0 million to fund 25 S-K national program projects. NMFS could have provided more specific research priorities in the competitive program solicitation. In addition, if research needs or priorities were not known at the time of original solicitation publication, NMFS could have issued a new solicitation containing updated needs and priorities. These actions may have resulted in competitive program applications that addressed all of NMFS's fiscal year 1997 research needs and preserved the competitive intent of the S-K Program. Of the 25 projects, we also have additional concerns regarding two projects. NMFS transferred \$330,000 to a preselected recipient without attempting to fund the research through the competitive S-K Program, and used \$300,000 to fund an unfunded competitive program project.

### I. The S-K Program Established Merit-Based Evaluation Criteria

The competitive S-K Program established merit-based evaluation criteria, consistent with the objectives of the program and Section 4.02a and 4.02h of DAO 203-26, to evaluate the applications. The S-K Program evaluation criteria are set out in the S-K Act, as amended (15 U.S.C. 713c-3), and were published in the *Federal Register*, dated March 19, 1996.

The *Federal Register* notice lists the following applicant and application requirements, with applicants meeting the applicant and financial qualifications requirements to be considered for further review:

- (1) *Applicant Qualifications.* Applicant must be a citizen of the United States, and may not be a Commerce/NOAA/NMFS employee.
- (2) *Financial Qualifications.* Applicant is encouraged to provide nonfederal cost-sharing funds. Cost-sharing will not be a factor in the technical evaluation, however, the degree of cost-sharing may be taken into account in the final selection process.
- (3) *Project Objectives.* Proposed project should address the objectives of the S-K Act, as amended (15 U.S.C. 713c-3). The S-K fund will be used to provide grants for fisheries research and development projects. The fiscal year 1996 S-K Program solicitation encouraged applicants to address the funding priorities of aquaculture, bycatch, fisheries management, fisheries utilization, or product quality and safety, listed in no particular order.

- (4) *Project Format.* Application must be complete. It must identify the principal participants, and the specific priority (if any) to which it is responding. It must contain a cover sheet, project summary, project budget, and a narrative project description. The narrative must include details regarding: goals and objectives, need for assistance, participation of persons other than the applicant, government activities and permits, statement of work, project management, project impacts, evaluation of the project, and supporting documentation.

The S-K Program's 1996 solicitation notice published in the *Federal Register* listed the evaluation criteria and procedures that the technical reviewers and constituency panel were to use in evaluating applications and presenting recommendations to the Assistant Administrator for Fisheries for final selection for funding, as follows:

- (1) Applications will initially be screened for conformance with application requirements.
- (2) NMFS will consult with interested NOAA/NMFS offices that may be affected or have knowledge of the proposal or subject matter.
- (3) NMFS will solicit technical evaluations for each project. The reviewers are nominated by the NMFS regional offices, and are individuals from academia or other government organizations with applicable expertise. At least three reviewers will assign a score to each application ranging from 60 (poor) to 100 (excellent). The technical review will be based on:
  - (a) Soundness of design/concept (50 percent).
  - (b) Project management, experience, qualifications (25 percent).
  - (c) Project evaluation effectiveness (10 percent).
  - (d) Project costs (15 percent).

After the technical reviews have been completed, NMFS will determine a cut-off score. Applications receiving scores at or above the cut-off will be forwarded to the next step. In fiscal year 1997, the cut-off score was 88.

- (4) After the technical evaluation, a constituency panel of three or more representatives selected by the Assistant Administrator for Fisheries from the fishing industry, state government and other organizations, will rank the projects. The constituency panel will provide recommendations on the merits of funding each project and the level of funding that should be provided, and will assign a project score ranging from 0 (poor) to 4 (excellent). NMFS will provide constituency panel members with:



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

30 SEP 1999

**MEMORANDUM FOR:** Dr. D. James Baker  
Under Secretary for Oceans and Atmosphere

**FROM:** Johnnie E. Frazier

**SUBJECT:** *NOAA's Planned Consolidation at  
Norman, Oklahoma Needs Refinement*  
Final Audit Report No. STD-10900-9-0001

The Office of Inspector General has completed an audit of NOAA's proposal to consolidate four of its components with the University of Oklahoma (OU) in Norman, Oklahoma. The proposal consisted of a formal written decision package and briefing to NOAA senior management in December 1998. The package was prepared by NOAA's Program Manager for the planned consolidation at Norman. The proposal had not received full NOAA or departmental approval at the time of our audit. The objective of the audit was to assess NOAA's justification for the proposed consolidation as early in the decision-making process as possible.

NOAA's proposal called for consolidating the National Severe Storms Laboratory (NSSL), Storm Prediction Center (SPC), and Weather Forecast Office (WFO) in a new building on OU's South Campus, and housing the NEXRAD Operational Support Facility (OSF) in a new building on the North Campus. The OSF staff is currently split between the two campuses. The two facilities would include a total of 145,500 square feet and generate annual lease and utility costs of about \$5 million. NOAA currently leases approximately 106,600 square feet on both campuses with lease and utility costs of about \$1 million per year.

Based on our review of NOAA's proposal, we made a number of observations on the size, cost, number, and location of the facilities that NOAA is proposing. Foremost, NOAA needs to examine other less costly options than to construct new buildings on both the North and South Campuses. Building on OU's South Campus would result in lease and utility costs of about \$38 a square foot, representing over a threefold increase in costs. One option, which could save up to \$12 million over 20 years, would be to construct only one building and continue to lease the existing buildings on OU's North Campus, consisting of Building 600, the Adair Building, and the Modular Radar Facility. A summary of our observations follows.

- The functional requirements for the Norman consolidation need to be finalized as soon as possible.
- Building 600, which houses NSSL and SPC, is severely overcrowded, resulting in some NSSL staff being housed in temporary structures, including a trailer and two modular buildings.

- The Adair Building, which houses the WFO and part of OSF, has sufficient space.
- The OSF South Building is not overcrowded, but consolidating OSF staff on the North Campus is desirable.
- NOAA will pay a high premium to be collocated with OU on the South Campus.
- Potential lease savings could be realized by considering other less costly alternatives, such as constructing only one new building and continuing to lease the existing facilities on the North Campus.

In its August 27, 1999, response to our draft audit report dated July 1999, NOAA generally agreed with the report's recommendations and stated that it had already taken action on two of them. NOAA further agreed to take action on the remaining recommendation. However, NOAA officials expressed concern with some of the draft report's observations and provided comments accordingly. NOAA also clarified what comprised its decision package, the project approvals that are required, and its current intention to reuse the existing North Campus facilities if OU chose to do so in meeting NOAA requirements. NOAA further stated that its process for acquiring new space for its Norman components was evolutionary and NOAA now plans to capitalize the construction of new and renovated space, versus leasing the facilities as previously proposed. NOAA's comments on our findings and recommendations are summarized following each section. NOAA's full response is provided as Attachment 2.

We concur with the action taken by NOAA on the report's first two recommendations and consider those recommendations resolved. We also concur with NOAA's planned action on our remaining recommendation. However, since NOAA now plans to capitalize the construction of its new and renovated space, its planned action should focus on lowering the cost of construction rather than of leasing. We plan to continue monitoring NOAA's construction cost estimates and supporting documentation, and we appreciate NOAA's keeping us informed of its progress.

Please provide your audit action plan within 60 days in accordance with Department Administrative Order 213-5. Because you have already implemented the report's first two recommendations, the action plan need only address recommendation #3. The plan should be in the format specified in Exhibit 7 of the DAO. If you have any questions on the contents of this report, please contact me at (202) 482-4661, or Ronald Lieberman, Director, Science and Technology Audits Division, at (301) 713-2070. We appreciate the cooperation and courtesies extended to us by NOAA staff during our review.

### **BACKGROUND**

NOAA leases approximately 106,000 square feet on the North and South Campuses of the University of Oklahoma at a cost of approximately \$1 million per year. The primary facilities on

the North Campus are Building 600 and the Adair Building. Total square footage of all North Campus facilities is 71,637 square feet, and lease and utility costs are \$674,159, or \$9.41 a square foot. NSSL, SPC, part of OSF, and the WFO are housed in Building 600, the Adair Building, and several temporary buildings. On OU's South Campus, NOAA leases 34,600 square feet in the OSF South Building, which is commercially owned, with annual lease and utility costs of \$368,500, or \$10.65 per square foot.

NOAA's proposal was for OU to build two new buildings, one on each campus, totaling 145,500 square feet, with annual lease and utility costs of approximately \$5 million. Annual lease and utility costs would be approximately \$1.3 million for the proposed new North Campus building and approximately \$3.6 million for the proposed new South Campus building. Attachment 1 depicts the current and proposed NOAA facilities. OU estimated that the lease costs per square foot would be \$26.44 for a new North Campus building and \$37.58 for a new South Campus building.

The proposed North Campus building would consolidate OSF staff, who are now split between the North and South Campuses. Currently, the OSF South Building houses 123 OSF staff, who would be consolidated with the 63 OSF staff currently on the North Campus in the proposed North Campus facility, which would contain 49,500 square feet.

The proposed South Campus building, which would contain 96,000 square feet, would consolidate NSSL, SPC, and SFO with OU, for a combined NOAA staff of 231. Included in the 96,000 square feet is 56,000 square feet of specialized space. This would include libraries, conference rooms, training areas, a mobile lab facility, laboratory space, engineering rooms, and an automated data processing area.

NOAA believes that collocating its Norman components with OU's meteorological research groups and its School of Meteorology would provide substantial benefits for both organizations. For example, collocation would create a joint NOAA-OU weather center facility which would house education, research, and service components. NOAA and OU would gain access to each other's personnel, resulting in a synergistic exchange of expertise that they believe will contribute significantly to the development of new forecast techniques and technologies.

In December 1995, NOAA estimated that the proposed buildings should include a total of 153,000 square feet. NOAA revised its estimate to 145,500 square feet in its December 1998 decision package outlining the Norman consolidation project.

In January 1999, NOAA senior management was briefed on the package. The package should have included program and facility functional requirements, a project schedule, a discussion of alternatives, and cost estimates; however, it did not include the functional requirements. The decision package did not receive final NOAA or departmental approval.



## **PURPOSE AND SCOPE OF AUDIT**

The purpose of our audit was to assess NOAA's justification for the proposed Norman consolidation. However, because NOAA had not completed a functional requirements analysis, we did not conduct a detailed audit of its space needs. We did, however, make some observations about how NOAA could reduce the cost of proposals, based on a review of its decision package.

We interviewed NOAA and OU officials concerning the consolidation and collocation issues. We inspected the North and South Campus buildings to determine their condition and space availability. We also verified the number of personnel occupying the facilities.

We reviewed applicable regulations, policies, and procedures. These included OMB Circular No. A-94, *Cost-Benefit Analysis of Federal Programs*; OMB Circular No. A-11, *Planning, Budgeting, and Acquisition of Fixed Assets*; NOAA's new construction guidance, *Approval of New Building Construction Projects*; and *GSA Rules on Construction Delegation of Authority*. We also examined management reports, NOAA's briefing documents to senior management, NOAA's lease agreements, and mission statements for NSSL, SPC, WFO, and OSF; and we interviewed Commerce, NOAA, and OU officials. We found that NOAA was in compliance with applicable laws and regulations. We conducted our fieldwork from April 1998 through March 1999 in Norman, Oklahoma, and in Washington, D.C.

We did not review internal controls relating to NOAA's decision to lease two new buildings because the decision package had not been completed or approved. Because we did not rely on computer-processed data in performing our audit, we did not assess the reliability of such data.

Except as noted above, our work was conducted in accordance with generally accepted government auditing standards and under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

## **OBSERVATIONS**

### **Functional Requirements Needed**

NOAA prepared a decision package on December 17, 1998, that called for leasing two new buildings totaling 145,500 square feet at a cost of approximately \$5 million. The package did not contain a functional requirements document, which is needed to accurately size NOAA's proposed facilities. Since the functional requirements were not available, we could not conduct a detailed analysis of NOAA's space requirements. NOAA has contracted with an architectural and engineering firm to provide this detailed information for a revised decision package, which is still in process.

### NOAA Response

NOAA explained that it completed a functional requirements analysis (*Norman Consolidation Report*, dated January 30, 1995, and *Norman Existing Facilities Survey*, dated October 3-4, 1995), and that its functional requirements were not intended to be included in the December 17, 1999, briefing package to NOAA senior managers. According to NOAA, the 1995 requirements were identified and used to define a rough order of magnitude of the proposed facilities; a comprehensive review and update of those requirements was completed on April 30, 1999; the NWS and OAR Assistant Administrators agree that the updated requirements represent good sizing of the project; and the Deputy Under Secretary for Oceans and Atmosphere has given approval to proceed to the detailed scoping phase.

### OIG Response

While NOAA is correct that information on its functional requirements was contained in its January 1995 report, our concern was that this information was over three years old and needed to be updated. We believed that a current functional requirements document should have been part of the decision package, because it would have provided NOAA senior managers with some assurance as to the validity of the requirements of the Norman components involved in the consolidation. We note that during our review, the Norman program and project managers agreed that an updated requirements analysis was needed. In addition, at the time of our audit, NOAA had not provided our office with a copy of its *Norman Existing Facilities Survey*.

### Building 600 Severely Overcrowded

On OU's North Campus, we found that Building 600 is severely overcrowded, resulting in some NSSL staff being housed in temporary structures, including a trailer and two modular buildings. Building 600 also lacks adequate space for research and engineering functions. Building 600 and the temporary structures contain a total of 30,100 square feet and house 144 NSSL staff and 36 SPC staff. In addition, the NSSL second-floor office workstations in Building 600 are very small and crowded together, while the research library lacks sufficient space.

Despite the overcrowding, generally the facility was in good condition. University officials told us that if NOAA chose to continue leasing Building 600, they would work to improve the facility. NOAA stated that it would be desirable to have a new roof, new flooring, and new HVAC system.

### NOAA Response

NOAA agreed that Building 600 was severely overcrowded and that it was structurally sound. NOAA also stated that Building 600 would require major renovation.

OIG Response

We concur with NOAA's response but note that we did not perform a detailed cost analysis of renovating Building 600. The intent of our observation was for NOAA to consider the use of the building in meeting its space needs on the North Campus, and NOAA has done this.

Adair Building Has Sufficient Space

The Adair Building on the North Campus, which contains 21,518 square feet and houses 63 OSF staff and the 32-person WFO, is in overall good condition and there is no overcrowding. However, some areas should be reconfigured for better utilization if NOAA personnel continue to occupy the building. Its lease and utility costs are included in the total lease and utility costs of \$674,159 for all North Campus buildings.

NOAA Response

NOAA generally agreed that the building was in good condition with no overcrowding, but noted that some areas would require decompression to conform to the Uniform Federal Accessibility Standards.

OIG Response

We concur with NOAA's response and acknowledge that some areas in the building may need to be reconfigured and widened to provide better access for handicapped individuals.

South Building Not Overcrowded, but Consolidation of OSF on North Campus Still Desirable

NOAA leases 34,600 square feet in the OSF South Building for 123 OSF staff. The space is sufficient for that staff, but not large enough to consolidate the 63 OSF staff from the North Campus and accommodate the need for additional specialized space. Also, it would not be desirable to move the OSF staff from the North Campus to the OSF South Building because it would hinder OSF from performing its mission of supporting the NEXRAD radar module, which is located near the Adair Building on the North Campus. OSF is responsible for providing maintenance and support to the entire network of NEXRAD radars, and the module on the North Campus is used to test and develop new software and make system enhancements. NOAA noted that it would cost more than \$2 million to relocate the radar.

In addition, while the OSF Director indicated that space was not a problem in the OSF South Building, he told us that the separation of staff between the campuses hampered efficiency of operations. He strongly supports having all staff consolidated on the North Campus.

NOAA Response

NOAA generally agreed that the OSF South Building is not overcrowded, but stated that the current layout was not conducive to efficient use of the space and does not provide adequate shop facilities or meet Uniform Federal Accessibility Standards.

OIG Response

We concur with NOAA's response.

Collocation on the South Campus Would Be at a High Premium

NOAA's proposal to collocate with OU on its South Campus would result in lease costs of about \$38 per square foot, or \$3.6 million per year for the 96,000 square feet that NOAA has proposed. OU officials told us that the projected cost for the 20-year lease is high because of the university's policy of building structures with life spans of 100 years. The quality and cost of such construction is much higher than for a building with a shorter life span.

NOAA currently leases about 34,600 square feet in the OSF South Building at a cost of about \$10.65 per square foot. With the proposed rate, NOAA would be paying over three times as much per square foot. The substantial cost increase is a high premium that may outweigh the benefits of NOAA's collocation with OU.

NOAA believes that collocating with OU's School of Meteorology will enhance access to OU's facilities and personnel and augment the agency's program initiatives. NOAA also believes that collocation will:

- reduce the time needed to transfer well-tested technology,
- leverage expertise to solve NOAA problems,
- leverage student help for research and operations,
- build synergy or critical mass to work on important NOAA problems, and
- provide a source of high-caliber employees.

However, collocation on OU's South Campus would come at a high cost, especially when compared with that of other possible locations. For example, to build on OU's North Campus would cost \$26.44 per square foot, or approximately \$11 less than the \$38 per square foot rate on the South Campus. At 96,000 feet, the proposed South Campus facility entails a \$1.1 million premium compared to a new North Campus structure. NOAA should determine if it could achieve the benefits of collocation at less cost.

### NOAA Response

NOAA agreed that there was a premium for collocation, but that it is not high when compared to other alternatives. NOAA stated that: (1) there would be a significant increase in rent for either the South or North Campus; (2) the current lease rate for OSF South does not provide an accurate basis for comparing the estimates for a new South Campus facility; and (3) 97,000 square feet is not available in the OSF building or in any other structure in Norman. Therefore, a build-to-suit structure was explored in an August 1996 analysis, which showed the cost to be higher for a private developer to acquire and construct a new facility than for OU to construct the same facility for NOAA.

NOAA stated that updated cost estimates show the rental rate for a newly constructed facility on the North Campus to be \$32.68 per square foot as compared to the \$26.44 in the June 1997 proposal. The \$26.44 did not include operations and maintenance or telecommunications infrastructure. Also, OU did not include the cost to upgrade the sewer infrastructure. As such, NOAA stated that the difference in annual rent between the OU collocation (South Campus) and a North Campus consolidation is \$3.29 per square foot, or \$510,910.

### OIG Response

We are pleased that NOAA has considered whether alternatives exist to reduce the high cost associated with collocation with OU on the South Campus and agree with NOAA's plans to continue to explore ways to reduce these costs.

We are, however, unable to verify NOAA's updated cost estimate of \$32.68 per square foot for leasing a newly constructed facility on the North Campus. While NOAA provided the updated *Norman Project Costs Analysis* with its response, the cost analysis does not provide a breakout of operations and maintenance, telecommunications infrastructure, or sewage infrastructure costs. NOAA needs to modify its cost analysis to show the costs for operations, maintenance, telecommunications, and sewage infrastructure costs.

We also commend NOAA for its commitment to follow-up on evaluating whether the possible sewage infrastructure could accommodate increased use. We agree that additional savings could be achieved if the existing infrastructure can be used.

NOAA did not discuss the cost of new construction in its response to this finding. However, NOAA's plans for exploring ways to reduce costs should now focus on reducing the cost of constructing new space, since NOAA's strategy is no longer to pursue the leasing of a facility on the South Campus. We plan to continue monitoring NOAA's construction cost estimates and supporting documentation as NOAA's plans evolve for the Norman consolidation.

Savings Possible by Continuing to Lease North Campus Buildings

Because Building 600 and the Adair Building are in good condition, we discussed with NOAA the possibility of using both buildings to consolidate OSF staff located in the OSF South Building with the OSF staff already on the North Campus. NOAA officials agreed that this could be done, but noted that Building 600 would have to be renovated. We were told by OU officials that the needed renovations would be minor, costing between \$100,000 and \$200,000. We believe that this approach will save NOAA about \$600,000 a year, or \$12 million over 20 years. The savings are based on the difference between the current North Campus square foot lease rate of \$9.41 and the projected lease and utility cost of a new facility on the North Campus of \$26.44 per square foot, for 49,500 square feet. Because of the potential savings from using both North Campus facilities, NOAA should consider constructing only one new facility to consolidate NSSL, SPC, and the WFO with OU, while continuing to lease Building 600, the Adair Building, and the Modular Radar Facility.

NOAA Response

NOAA generally agreed that if OU were to renovate and continue to lease the North Campus buildings, savings would be achieved when compared to building all new facilities. NOAA said OU estimated that the cost of renovating Building 600 could be as high as \$100 per square foot, or \$2.5 million. NOAA estimated that renovating the existing facilities would still save approximately \$472,000 per year, or \$9.50 a square foot. NOAA said it will continue to seek the most cost-effective solution.

OIG Response

We concur with NOAA's proposed action to seek the most cost-effective solution. However, we are unable to comment on the cost to renovate the buildings because NOAA has not completed a detailed analysis to support its numbers. NOAA's estimates were based on a rough order of magnitude. We plan to review NOAA's detailed cost estimates to renovate the North Campus buildings as they become available.

RECOMMENDATIONS

We recommend that the Under Secretary for Oceans and Atmosphere ensure that the Norman consolidation project and program managers:

1. **Complete a functional requirements analysis to accurately determine the space requirements for the Norman consolidation.**

NOAA Response

NOAA stated that it had reviewed and updated its functional requirements. Copies of the documents, *Norman Project Existing Facilities Survey and Programing Study*, dated April 30, 1999, and Addendum, *Potential Economics for Shared Spaces*, dated May 3, 1999, were provided to the OIG on August 18, 1999.

OIG Response

We concur with NOAA's response and agree that NOAA has met the intent of our recommendation by completing an updated requirements document. We consider this recommendation resolved.

2. **Evaluate the alternative of building and leasing one new building instead of two and continuing to lease Building 600 and the Adair Building on the North Campus.**

NOAA Response

NOAA completed an evaluation of leasing only one new building and continuing to lease Building 600 and the Adair Building on the North Campus. NOAA stated that it will now pursue a project of constructing a new facility on the South Campus in collaboration with the University's School of Meteorology, and renovating the existing space on the North Campus. NOAA further stated that a small addition of 5,000 square feet will be required. The 5,000 square feet is needed to replace the two modular structures that NOAA now occupies on the North Campus.

OIG Response

We concur with NOAA's response and agree that the actions taken meet the intent of our recommendation. We consider this recommendation resolved.

3. **Evaluate alternatives to reduce the \$38 per square foot rate to lease a new building constructed on the South Campus.**

NOAA Response

NOAA agreed and stated that its negotiation strategy will explore ways to reduce cost but that the issue cannot be finalized until an agreement with OU is reached.

OIG Response

We concur with NOAA's planned action to explore ways to reduce costs as part of its strategy to negotiate an agreement with OU. However, since NOAA now plans to capitalize the construction of its new and renovated space, its planned action should focus on lowering the cost of construction rather than leasing. We plan to continue our review when NOAA's construction cost estimates and supporting documentation are finalized.

Attachments

cc: Scott Gudes, Deputy Under Secretary for Oceans and Atmosphere  
General Jack Kelly, Assistant Administrator, National Weather Service  
Dr. David Evans, Assistant Administrator for Oceanic and Atmospheric Research  
Louisa Koch, Deputy Assistant Administrator, Oceanic and Atmospheric Research  
Paul F. Roberts, Chief Financial Officer/Chief Administrative Officer, NOAA  
Barbara Martin, Chief, Audit and Internal Control Staff Office, NOAA

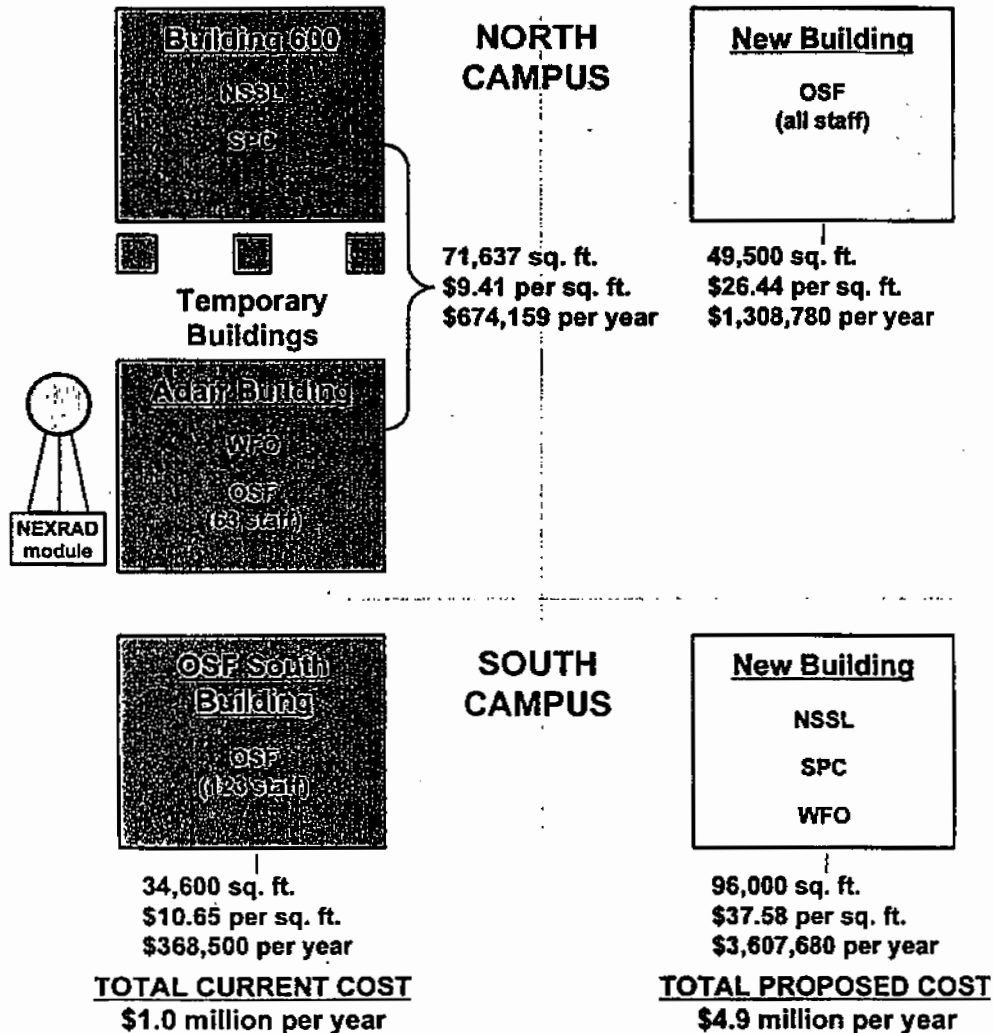


# Current and Proposed NOAA Facilities at the University of Oklahoma

*(Dollar figures represent lease and utility costs)*

## Current

## Proposed





ATTACHMENT 2  
**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

August 27, 1999

MEMORANDUM FOR: George Ross  
Assistant Inspector General for Auditing

FROM: *for* Paul Roberts *Rand R. Lessor*  
Chief Financial Officer/  
Chief Administrative Officer

SUBJECT: Office of Inspector General (OIG) Draft  
Audit Report on NOAA's Planned Consolidation at  
Norman, Oklahoma Needs Refinement,  
Report No. STD-10900-9-0001/July 1999

Thank you for the opportunity to comment on the OIG subject draft report, and meeting with us on August 18, 1999, to informally discuss your report and our proposed response. While we generally agree with the report's recommendations, and have concluded two of the three, we are concerned with some of the report's observations and have addressed them in the attached response.

First and foremost, this process is evolutionary, so it is difficult at this time to determine exact costs of the project. As we discussed in our meeting, the dynamic nature of the project has resulted in changes since the OIG audit was completed in March 1999. For example, the National Oceanic and Atmospheric Administration (NOAA) now plans to capitalize the construction of new and renovated space, versus leasing the facilities as previously proposed.

We realize that the OIG report represents a snapshot of time from April 1998 to March 1999. As we agreed in our meeting, this project is still very much in its developmental stages. We plan to keep you informed of NOAA's progress, and as such, we are attaching to our comments copies of recently developed documents.

Please contact me, or Barbara Martin, should you require additional information.

Attachment



## RESPONSE TO OFFICE OF INSPECTOR GENERAL

DRAFT AUDIT REPORT No. STD-10900-9-0001 DATED JULY 22, 1999

### *NOAA'S PLANNED CONSOLIDATION at NORMAN, OKLAHOMA NEEDS REFINEMENT*

#### Comments

After reviewing the information contained in the Office of Inspector General's (OIG) draft audit report, the following comments are provided. These comments correct some factual details and clarify the work that has been done on the project.

The National Oceanic and Atmospheric Administration's (NOAA) proposal consisted of not only a formal decision package and briefing to NOAA senior management in December 1998, but all of the project documents that had been created in the time frame of January 1995 through March 1999. New documents (attached) generated since March 1999 have also now become part of the project proposal. They include:

- *Norman Project Existing Facilities and Programming Study, Revision 2, dated April 30, 1999 and Addendum, Potential Economies for Shared Spaces, dated May 3, 1999*
- *Briefing to NOAA Senior Management, dated May 3, 1999*
- *Deputy Under Secretary (DUS) Memorandum Approval to Proceed to PDAM Phase Two, dated May 26, 1999*
- *DOC Budget Briefing, dated June 16, 1999*
- *Norman Project Costs Analysis, updated August 13, 1999*

In addition, full NOAA or departmental approval is not required at Decision Point 2 (DP2) in the Project Development, Approval and Management (PDAM) process. Only approval from the DUS is required at this point. This approval, allowing the project to move into the detailed scoping phase, was granted May 26, 1999 (Reference: DUS Memorandum Approval to Proceed to PDAM Phase Two, dated May 26, 1999).

While the project originally portrayed the construction of two new buildings, one on the Main Campus and the other on the North Campus, NOAA's intention has been to reuse those existing North Campus facilities following renovation, if the University chose to do so in responding to our requirements. For simplification, and to reflect a "worst-case" perspective, two "all new construction" scenarios were presented to the DUS in December 1998, while seeking approval to conduct further analysis. Following the functional requirements review, NOAA's cost

estimates were updated and revised to reflect the University's plan to locate the joint Weather Center within their proposed South Base development, and NOAA's intent to renovate and reuse existing North Base facilities.

The functional requirements were initially identified in both the *Norman Consolidation Report*, dated January 30, 1995, and the *Norman Existing Facilities Survey*, dated October 3-4, 1995. A more detailed review and validation of these requirements was completed in April 1999, as part of the preparation for the DP2 approval request to the DUS. Also, a preliminary analysis of shared spaces identified potential space savings realized by consolidation of NOAA elements.

#### Observations

##### OIG Finding: Functional Requirements Needed

NOAA completed a functional requirements analysis (reference: *Norman Consolidation Report*, dated January 30, 1995, and *Norman Existing Facilities Survey*, dated October 3-4, 1995). The functional requirements were not intended to be included in the December 17, 1998, DUS briefing package. Those functional requirements had been identified and used to define the rough order of magnitude (ROM) size of the proposed facilities. A comprehensive review and update of those functional requirements has now been completed. (Reference: *Norman Project Existing Facilities and Programming Study, Revision 2*, dated April 30, 1999, and Addendum: *Potential Economies for Shared Spaces*, dated May 3, 1999). The Assistant Administrators for National Weather Service (NWS) and Oceanic and Atmospheric Research (OAR) are in agreement that these now represent good ROM sizing for the project. The revised DUS briefing package has been completed and the DUS has given approval to proceed to Phase Two, Detailed Scoping.

##### OIG Finding: Building 600 Severely Overcrowded

NOAA agrees with the OIG's finding that Building 600 is severely overcrowded. Both the National Severe Storms Laboratory (NSSL) and the Storm Prediction Center (SPC) are being partially housed in temporary structures. Although structurally sound, Building 600 will require major renovations.



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

FEB 9 2000

MEMORANDUM FOR: Kenneth Prewitt  
Director  
Bureau of the Census

FROM: Johnnie E. Frazier

SUBJECT: Final Inspection Report: Year 2000 Preparations Were Effective,  
but Business Continuity and Contingency Planning Needed  
Improvement (OSE-12200)

As a follow-up to our December 7, 1999 draft report, this is our final report on our review of the Census Bureau's year 2000 (Y2K) readiness. We found that, in general, the bureau had successfully replaced and tested its systems in preparation for Y2K and had made progress in developing a business continuity and contingency plan (BCCP). However, in reviewing the bureau's September 1999 draft BCCP, we found that existing contingency plans for critical systems and business processes needed to be further developed, test plans developed, and BCCP tests executed to better prepare the bureau for continued operation in the event of Y2K problems. Based on a suggestion we made during our fieldwork, the bureau added three critical decennial systems to its November draft BCCP. Detailed contingency plans and test plans needed to be developed and BCCP tests executed for these systems.

We discussed our observations and recommendations with the Deputy Director and Chief Operating Officer of the Bureau of the Census during an exit briefing on November 10, 1999. We received a written response to our draft report from the Director of the Census Bureau and the Under Secretary for Economic Affairs on February 2, 2000. The oral and written responses to our findings were positive, indicating that all operations are functioning successfully. The written response is summarized on page 8 and included in its entirety as Appendix A.

We appreciate the cooperation of Census Bureau staff during the review.

#### BACKGROUND

The Census Bureau's mission is to be the preeminent collector and provider of timely, relevant, and quality data about the people and economy of the nation. Achieving this mission depends on the systems, people, and infrastructure that make up the bureau's information technology environment. The bureau's largest and most recognizable program is the 2000 Decennial Census. The decennial will provide the country with comprehensive data about how many people reside in the United States, where they reside, and their demographic characteristics.

The bureau developed several new systems specifically for the decennial, including the Pre-Appointment Management System/Automated Decennial Administrative Management System (PAMS/ADAMS), used to process personnel and payroll actions, and the Decennial Applicant Name Check (DANC) system, used to screen job applicants. The bureau also relies heavily on existing renovated or replaced systems to help prepare for the decennial and to process decennial data. One of these systems is the Geographic Support System (GSS), which generates maps and addresses for conducting censuses.

The bureau's systems must be Y2K compliant to avoid disruption to critical processes. Accordingly, the bureau established a Y2K program for repairing and testing existing mission-critical systems and preparing a BCCP. A bureau inventory of all systems found 58 to be mission critical. For these 58 systems, the bureau determined which were already compliant, which would be replaced or retired, and which would be repaired. By February 1999, the bureau revised the number of mission-critical systems to 56 and reported that repairs to all systems had been implemented. Nine of these mission-critical systems were included in the bureau's BCCP because they were identified for early January 2000 production. Many systems were excluded from the BCCP because they are used for cyclical surveys and censuses and will not be in production until later in 2000.

Even after an agency has undertaken a large-scale effort to make its systems Y2K compliant, there remains a risk that one or more mission-critical systems will fail and severely hamper its ability to deliver critical services. Because of this risk, each agency must have a BCCP. The BCCP process focuses on reducing the risk of Y2K-induced failures. It safeguards an agency's ability to produce a minimum acceptable level of outputs and services in the event of failures of internal or external mission-critical information systems and services. It also links risk management and mitigation efforts to the agency's Y2K program and helps to identify alternative resources and processes needed to operate the agency's core business processes.

The General Accounting Office (GAO) published guidelines to aid federal agencies in preparing for the year 2000 century change. According to GAO, a well-structured BCCP program includes the following four phases and supporting key processes:

- **Initiating a BCCP** - Establish a business project work group, and develop a high-level business continuity planning strategy. Develop a master schedule and milestones, and obtain executive support.
- **Analyzing Business Impacts** - Assess the potential impact of mission-critical system failures on the agency's core business processes. Define Y2K failure scenarios, and perform risk and impact analyses of each core business process. Assess infrastructure risk, and define the minimum acceptable levels of outputs for each core business process.

- **Contingency Planning** - Identify and document contingency plans and implementation modes. Define triggers for activating contingency plans, and establish a business resumption team for each core business process.
- **Testing** - Validate the agency's business continuity strategy. Develop and document contingency test plans. Prepare and execute tests. Update disaster recovery plans and procedures.

The Census Bureau developed an agency-level BCCP that identifies broad areas of risk and general mitigation strategies and contingencies. The bureau defines its programs and activities as four "business lines" that support the decennial and non-decennial activities:

- Data that define legislative representation and federal funding.
- Data that shape policy and business decisions.
- Data that show current and suggest future economic and social conditions.
- Tools and technology that produce better information.

#### **PURPOSE AND SCOPE OF INSPECTION**

The purpose of our review was to reduce the risk of business interruption due to the year 2000 century change by assessing actions taken by the Census Bureau and recommending practical risk mitigation and contingency planning activities.

The scope of our review included a limited assessment of actions taken to replace or renovate selected systems to make them Y2K compliant, including system testing. We also reviewed the bureau's BCCP and the process used to prepare it, including initiation of planning, management involvement in support of Y2K preparedness, business impact analyses, detailed contingency and disaster recovery planning, and business process testing.

We reviewed documentation describing the bureau's systems architecture, information technology plans, and Y2K test results for PAMS/ADAMS, DANC, and GSS; evaluated the September 1999 and November 1999 draft versions of the bureau's BCCP; interviewed the Y2K program director within the bureau's Office of the Associate Director for Information Technology and interviewed staff in the Office of the Associate Director for Decennial Census; and at the conclusion of our fieldwork, briefed the bureau's Deputy Director and Y2K staff on the results of our review.

Our evaluation criteria were derived from GAO guidelines written specifically for the Y2K computing crisis, and best business practices. The GAO guidance has been accepted by the Office of Management and Budget, the Chief Information Officers Council, and the Department.

Our fieldwork was conducted at the Census Bureau headquarters in Suitland, Maryland, and at the Bowie, Maryland, Computer Center primarily during September and October 1999. This inspection was performed in accordance with the Inspector General Act of 1978, as amended, and the *Quality Standards for Inspections*, March 1993, issued by the President's Council on Integrity and Efficiency.

## **OBSERVATIONS AND CONCLUSIONS**

At the time of our fieldwork, the Census Bureau had successfully replaced and tested its systems in preparation for Y2K and had made progress in developing a BCCP. The bureau established Y2K test environments for its systems and hired contractors to perform independent Y2K testing on selected mission-critical and decennial systems. The bureau reported that all mission-critical systems were Y2K compliant.

However, the bureau needed to further develop existing contingency plans and develop BCCP test plans and execute BCCP tests for the nine critical business processes and systems that were included in its September 1999 draft BCCP. Based on our suggestion during fieldwork, the bureau added three critical systems, PAMS/ADAMS, DANC, and GSS to the November 1999 draft of its BCCP. Because of the recent addition of these systems to the BCCP, detailed contingency plans and test plans had not been developed for them. Consequently, tests had not been executed to validate that contingency plans would ensure business continuity in the event of Y2K-related systems failures.

### **I. Replacement and Testing of Critical Systems Have Been Completed**

The Census Bureau reported that all mission-critical systems were Y2K compliant as of March 1999. All other systems were scheduled to be compliant by November 30, 1999. In addition to the existing systems that were renovated or replaced for Y2K compliance, the bureau has been developing new systems, with 4-digit dates, to support the decennial. Some of these systems are already in production and others will begin operation later this year.

Separate Y2K testing environments were established at the bureau's Bowie Computer Center and the Decennial Beta Test Site. The beta site provides a facility to test decennial software on computer systems that are identical to production systems, and enabled Y2K clock-forward testing, in which the system date was set to a date later than December 31, 1999, so that software was tested as though it were operating in the next century. All decennial systems in operation at the turn of the century were independently tested.

The bureau risk mitigation efforts also included hiring two contractors to perform independent Y2K compliance testing on 22 non-decennial mission-critical systems. The bureau also inventoried its incoming and outgoing data exchanges and identified 18 data exchanges related to



13 mission-critical systems. According to the bureau, all data exchange issues were resolved.

## **II. Contingency Plans Needed Further Development, Test Plans and Tests Were Needed for Critical Systems in September BCCP**

Our review of the bureau's September 1999 draft BCCP revealed that contingency plans needed to be further developed, test plans established, and BCCP tests executed to ensure that the plan provides the level of contingency necessary to mitigate risk and ensure continuity of critical business processes in the event of Y2K-related systems failures.

### More detailed contingency plans were needed

The bureau had not developed detailed contingency plans, and therefore its BCCP could not be used to ensure the continued delivery of minimum acceptable levels of outputs and services during potential Y2K failures. The BCCP makes reference to "alternative services," "preemptive strategies," and "event response actions" for the outputs/deliverables from each core business process. But the BCCP did not include the detailed business process workarounds needed to implement these services, strategies, and actions in the event that the BCCP had to be used.

The BCCP also documents fault tolerances/recovery times, defined as the amount of time the bureau could operate without the outputs/deliverables from each core business process. But without detailed contingency plans, the strategy for meeting the minimum acceptable output and service levels was undefined.

The bureau's minimum acceptable levels of outputs and services are represented by very tight fault tolerances. The BCCP identified 38 deliverables with due dates that occur between December 31, 1999, and March 1, 2000, and 31 of them have fault tolerances that are 5 working days or less. Twenty-six of the 31 deliverables are outputs from the core business process, "Data that show current and suggest future economic and social conditions." Examples of these deliverables are the Monthly and Annual Retail Trade and Wholesale Trade Reports, which are used by the Department's Bureau of Economic Analysis in calculating quarterly estimates of the gross domestic product. To mitigate the risk, the bureau needed detailed contingency plans explaining how these fault tolerances will be met.

### Test plans needed to be developed and tests executed

Test plans needed to be developed, test teams established, business resumption teams rehearsed, and tests executed to validate contingency plans. The bureau's BCCP included only a high-level description of testing that was too broad to link to specific core business processes. The plan did not document that any tests had been conducted or scheduled.

The objective of testing was to evaluate whether contingencies provided the desired level of service to customers and could be implemented within a specified time. Without defined procedures that identify specific test tasks, conditions, and standards, it would have been difficult to conduct effective, consistent BCCP tests. Because no test teams had been established to validate contingency plans, the bureau could not evaluate the BCCP's capability to meet minimum acceptable levels of outputs and services. Also, without plans to rehearse the business resumption teams, it would have been difficult to assure bureau managers that the teams were capable of implementing the BCCP.

Based on the lack of detail about contingency plans and business process testing, the BCCP did not provide for continuity of business operations in the absence of existing mission-critical computer systems due to Y2K-related problems. The BCCP asserted that the failure of one or more systems in January 2000 would have minimal impact. We agree that many cyclical business processes could be delayed, sometimes for extended periods, without serious impact. However, the bureau identified relatively short time periods (5 days or less) for being without most of its critical deliverables, and did not identify how these time frames would be met if systems used to generate the deliverables were not available. A key function of a BCCP is to facilitate the restoration of normal service at the earliest possible time in the most cost effective manner, and a fully developed and tested BCCP would provide the bureau with important assurances. For example, it would demonstrate how the bureau would generate important economic indicators, such as the Monthly Wholesale Trade Report, or statistics on housing starts or sales that have zero tolerance for delays.

The Department requested all bureaus to follow GAO's BCCP guidance, which instructed agencies to develop potential Y2K failure scenarios and "assume the loss of all mission-critical information systems due to post-implementation failures or delays in renovation and testing." The guidance also suggested that BCCPs include strategies for meeting minimum acceptable output and service level requirements for each core business process.

### **III. Contingency Plans, Test Plans, and Tests Needed for November Additions to BCCP**

The bureau initially excluded all decennial systems from its BCCP because most will not begin production until March 2000 or later. But PAMS/ADAMS, DANC, and GSS were operating in 1999 in preparation for the decennial and will be used extensively during the decennial. Based on a suggestion we made to the bureau's Y2K coordinator during our fieldwork, the bureau added these three mission-critical systems to the November 1999 draft of its BCCP. Because these systems were added so recently, they were not supported by detailed contingency or test plans. It was important that detailed contingency plans and BCCP test plans were developed and tests executed for these business processes/systems.

PAMS/ADAMS, one of the principal components of the decennial field infrastructure, was designed as an automated system to support the hiring of employees, processing of personnel actions, processing of a weekly payroll, provision of reports and data outputs, and maintenance of historical data. To perform early field operations, the system provides decennial administrative management for approximately 4,000 employees and pre-appointment management of about 400,000 job applicants needed to maintain staffing levels. The system is expected to handle more than 3 million recruits for decennial census jobs and to support as many as 860,000 temporary positions. PAMS/ADAMS electronically sends job applicant data through DANC to be formatted and transmitted to the FBI to identify applicants who are eligible to be hired as quickly as possible. DANC must be able to process 100,000 applications per day during the peak decennial period.

GSS, a comprehensive integrated computer-based system used to establish and maintain accurate geographic boundaries and addresses, supports most of the bureau's censuses and surveys, including the decennial. It provides the basic maps, reference files, and associated processing systems needed to meet the geographic requirements of all bureau programs. GSS helps the bureau provide essential statistical data for the apportionment of congressional seats among the states, redistricting by state legislatures for congressional and state legislative representation and governmental or administrative subdivision, distribution of federal and state funds for formula grant programs, and economic and demographic analysis by private, academic, and government sectors.

In response to our suggestion, the November 1999 draft BCCP listed the three systems, but without any elaboration. As a result, the bureau had not exposed these critical systems and business processes to the degree of business impact analysis, contingency planning, and testing that was necessary for Y2K preparedness. Business impact analyses determine the effect system failures will have on the business processes that these systems perform and define failure scenarios, assess infrastructure risks, and determine the minimum acceptable levels of outputs for each core business process. The results of impact analyses are used to develop contingency plans that document implementation modes, define when plans should be activated, and establish business resumption teams for each core business process. Testing validates that contingency plans will provide the desired level of service and provides a mechanism for updating disaster recovery plans if necessary.

Even though the bureau had extensively prepared its systems for Y2K, there remained a risk that one or more mission-critical systems would fail and severely hamper the bureau's ability to deliver accurate, timely data products. Because of this risk, the bureau needed detailed contingency plans that consider the effects of losing the systems. For example, a detailed contingency plan would demonstrate how the bureau would process the weekly payroll for hundreds of thousands of temporary employees if PAMS/ADAMS were unavailable for an extended period. Tests of the contingency plan would demonstrate to bureau management that

the contingency could be successfully implemented in the case of a Y2K-related system failure.

## **RECOMMENDATIONS**

To ensure the continuity of core business processes in the event of system failures, we recommended that the Director, Bureau of the Census, take the following actions.

1. For systems reported as critical in the draft September 1999 BCCP:
  - a. Develop more detailed contingency plans for core business processes, particularly, "Data that show current and suggest future economic and social conditions."
  - b. Develop test plans, establish test teams, conduct business resumption team rehearsals, and execute BCCP tests to validate contingency plans.
2. For the three decennial systems added to the November draft BCCP-PAMS/ADAMS, DANC, and GSS:
  - a. Develop contingency plans for core business processes.
  - b. Develop test plans, establish test teams, conduct business resumption team rehearsals, and execute BCCP tests to validate contingency plans.

### *Synopsis of the Census Bureau's Response*

The bureau responded to our draft inspection report after the century rollover. The brief response stated that all Census systems were tested, including PAMS/ADAMS, DANC, and GSS, that no Y2K errors were found during testing conducted before and after the century rollover, and that all operations are functioning successfully. The bureau's full response is included as Appendix A.



APPENDIX A  
UNITED STATES DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. Census Bureau  
Washington, DC 20233-0001  
OFFICE OF THE DIRECTOR  
FEB 2 2000

MEMORANDUM FOR Judith J. Gordon  
Assistant Inspector General  
for Systems Evaluation

Through: Robert J. Shapiro *RJS*  
Under Secretary for Economic Affairs

From: Kenneth Prewitt *William Prewitt*  
Director

Subject: *Year 2000 Preparations Are Effective, but Business  
Continuity and Contingency Planning Needs Improvement*  
Draft Audit Report No. OSE-12200

This is in response to your memorandum dated December 7, 1999, transmitting the above referenced draft audit report, which included the following recommendations:

1. *For systems reported as critical in the draft September 1999 BCCP:*
  - a. *Develop more detailed contingency plans for core business processes, particularly, "Data that show current and suggest future economic and social conditions."*
  - b. *Develop test plans, establish test teams, conduct business resumption team rehearsals, and execute BCCP tests to validate contingency plans.*
2. *For the three decennial systems added to the November draft BCCP—PAMS/ADAMS, DANC, and GSS:*
  - a. *Develop contingency plans for core business processes.*
  - b. *Develop test plans, establish test teams, conduct business resumption team rehearsals, and execute BCCP tests to validate contingency plans.*

The U.S. Census Bureau considers these recommendations resolved:

The Census Bureau appreciates the very helpful contributions from the Office of Inspector General, which were included in our testing programs and helped ensure that our systems were prepared for any complications relating to the arrival of January 1, 2000. All Census 2000 systems, including PAMS/ADAMS, DANC, and GSS, underwent rigorous pretesting in the months preceding January 1, 2000, and each has been tested since the beginning of the New Year. All operations are functioning successfully, and no Year 2000 errors have been found. Documentation of this testing is available upon request.

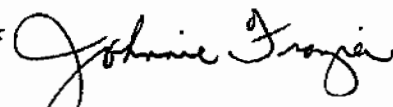


UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

MAR 20 2000

**MEMORANDUM FOR:** David Aaron  
Under Secretary for International Trade

Marjory Searing  
Acting Assistant Secretary and Director General of US&FCS

**FROM:** Johnnie E. Frazier  
Inspector General 

**SUBJECT:** Final Report: International Trade Administration: *US&FCS France: Leadership in Post Management and Administrative Matters Needs to be Reestablished* (IPE-12428)

Attached is the final report of our inspection of US&FCS France for your consideration and action. As you may recall, the OIG was asked by the former Director General and other senior US&FCS managers to conduct a focused, quick-response inspection of the management problems that had emerged at the US&FCS post in Paris. We issued a draft report on our findings on December 20, 1999. This report includes comments on ITA's February 8, 2000, response to that draft report. A copy of your complete response is attached to the report.

The OIG inspection team found that US&FCS France had serious morale problems, an ineffective organizational structure that needed adjustments, and significant financial and administrative problems that should be addressed immediately. For the most part, these problems were the result of a lack of leadership and oversight by the prior two sets of post managers and ITA's headquarters operations. As noted in our report, we believe US&FCS headquarters and the Paris post need to (1) provide better oversight of financial and administrative transactions, (2) reorganize the structure of US&FCS France to improve post operations in light of staff resignations, vacancies and the reassignment of an officer to Toulouse, and (3) strengthen post leadership and relations with the embassy. Your response to our report noted that there was agreement with the vast majority of our recommendations, which has been noted in the appropriate sections of the report. We made additional comments or adjustments to the report, where necessary, to reflect your comments or those of other ITA components on our report.

In general, we have been pleased with the swift, initial action that US&FCS has taken to address the most pressing problems of lack of leadership in Paris. We are hoping that follow up actions will be equally direct and comprehensive. We are requesting that ITA provide a combined action plan that addresses our recommendations to ITA headquarters, US&FCS headquarters and US&FCS France within 60 calendar days of the date of this memorandum. We thank the personnel in ITA and US&FCS France for the assistance and courtesies extended to us during our review. If you have any questions or would like to discuss this report further, please contact me on (202) 482-4661.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	1
BACKGROUND .....	2
OBSERVATIONS AND CONCLUSIONS .....	5
I.    Management Neglect and Limited Resources Led to Problems in Financial and Administrative Operations .....	5
II.   Better Controls and Oversight Are Needed for the Post's Use of the Purchase Card .....	19
III.  Personnel and Responsibilities Need to be Realigned .....	22
IV.  Post Morale and Credibility with Other Embassy Elements Need to Be Improved .....	29
RECOMMENDATIONS .....	33
APPENDICES	
I.    US&FCS France Trust Fund Data .....	36
II.   US&FCS France Reorganization Charts .....	37
III.  ITA Response to Draft Inspection Report .....	40

## EXECUTIVE SUMMARY

France, with the world's fourth largest industrial economy, is one of the United States' most important political, cultural, and economic partners. Relations between the United States and France are cordial and very active. The economic relationship between the two countries is close and mutually beneficial. In 1998, U.S. exports to France totaled about \$18 billion, and imports were valued at about \$24 billion. France is the United States' ninth largest trading partner and its third largest market in Europe (after the United Kingdom and Germany).

The United States & Foreign Commercial Service (US&FCS) has its eighth largest post in France, with a budget of \$1.9 million in FY 1999. At the time of our review, the post employed 6 American officers (including the officer assigned to the Organization for Economic Cooperation and Development office in Paris), 12 Foreign Service Nationals (FSNs) and 8 Personal Services Contractors (PSCs). Until recently, according to US&FCS senior officials, US&FCS France had been considered a productive export promotion post, with a dedicated and professional American and FSN staff. US&FCS Paris is traditionally not only one of the most desirable postings for officers, but is also among the most visible in US&FCS, due to its large, well-known trade events such as the Paris Air Show and a constant stream of high-level, official visitors.

In late September 1999, the US&FCS Director General asked the Office of Inspector General to conduct a limited, quick-response review of US&FCS France, due to management's growing concerns about administrative, financial, and management problems that had developed in US&FCS Paris. Serious questions had been raised about

Exemption (b)(6)

Our inspection focused on identifying the key management, administrative, and financial problems in Paris that needed to be addressed initially by the interim SCO who was temporarily assigned to the post from a nearby US&FCS post and by the new SCO and DSCO who arrived at post in February 2000 and November 1999, respectively. More specifically, we conducted a review of (1) internal controls over Operations and Administration funds, (2) controls over deposit funds, (3) the appropriateness of the post's organizational structure, (4) International Cooperative Administrative Support Services charges, (5) management of the post's physical assets (e.g., official vehicles, cellular phones, and equipment), (6) various personnel matters, and (7) other issues related to management of the post. Due to the need for swift action, we did not expand the scope of our review to cover the post's program operations or effectiveness. Our field work was conducted from October 25 to November 5, 1999. We discussed our findings with post managers in Paris on November 5 and with the US&FCS Deputy Director General and Deputy Assistant Secretary for International Operations on November 15.



In general, we found that the US&FCS office in Paris has a very serious morale problem and had been operating in an ineffective organizational structure that needs adjustment, and is beset with serious financial and administrative problems that need to be resolved. By most accounts, the problems can be traced directly to ineffective management styles and the lack of leadership and appropriate oversight on the part of two previous sets of senior managers. We found that post morale is still a problem, some staff have resigned, the post is not functioning well as a team, financial records and procedures are in disarray, and relations with other embassy elements are extremely poor. Nevertheless, we believe that there is reason to be optimistic as the new management team takes over the post. Temporary post management as well as the new Deputy Senior Commercial Officer have already taken steps to address some of the problems at the post. At the same time, it is clear that the new team has a difficult challenge of reestablishing the reputation of the post within the embassy and addressing lingering financial and administrative problems. Our specific observations are as follows:

**Widespread Administrative and Financial Problems and Errors**

Our review of US&FCS France's administrative and financial practices, transactions, and procedures uncovered a significant pattern of errors that had been occurring since FY 1998. There were two main reasons for these problems. First, successive management groups have paid little or no attention to administrative and financial operations. Second, the absence of staff due to long-term leave and the inadequate training of the remaining staff left the Administrative Group extremely short-handed and incapable of handling all financial and administrative functions in FY 1999. In addition, administrative and financial demands created by multiple high-level visits, as well as the implementation of new financial systems—an electronic credit card collection system and an overseas transaction database—complicated and worsened the post's situation.

As a result, we noted significant and widespread problems in this area. Specifically, adequate internal controls were not in place; policies, procedures, and regulations were not adhered to; multiple errors in the FY 1999 trust fund data occurred; questionable expenditures were made; unliquidated obligations were not deobligated; personnel matters were not handled appropriately; and cooperative relationships with the embassy's budget, finance, and personnel offices deteriorated. We have made significant recommendations to the new management team at the post, both to rectify problems with financial data from FY 1999, and to ensure that the post's finances are handled more appropriately in FY 2000. We also have suggested adjustments to the post's organization to better manage this area. (See page 5.)

**Better Controls and Oversight by Washington and Post for Credit Card Purchases Are Needed**

ITA headquarters and US&FCS France have not implemented adequate controls over the use of purchase cards to ensure that (1) overseas posts do not exceed funds authorization, (2) expenditures are charged against the appropriate accounts, (3) only acceptable expenditures are charged, and (4) procurement regulations are followed. We identified several areas of concern and advised management that they needed immediate attention. Recent changes by ITA's Office of Financial

Management, instructing both domestic and foreign posts to forward purchase card statements directly to the Department of the Interior's National Business Center in Denver, thus bypassing Washington, leave serious oversight gaps. Without receiving post credit purchases, neither ITA's Office of Financial Management nor US&FCS headquarters can be assured that correct accounting classifications are applied to each expenditure itemized on the statement and that domestic offices or foreign posts do not exceed total authorizations. It appears that no method of reconciliation is in place, nor do adequate controls exist to monitor purchases. In reviewing the first and second statements for US&FCS France, we found that many expenditures had not been authorized by headquarters to be put on the purchase card. (See page 19.)

**US&FCS France Needs to Reorganize to Account for Vacancies and Reassignment of Officer to Toulouse**

US&FCS France needs to reorganize its personnel and functions to improve its ability to meet its mission goals and objectives. We believe that a reorganization is necessary due to resignations, extended vacancies in key positions, current overstaffing in the Administrative Group, and the reassignment of one of US&FCS Paris' officers to Toulouse, France.<sup>1</sup> With only one junior officer remaining at the commercial section in Paris, the span of control will be too great for this officer to effectively oversee the day-to-day operations of all the industry groups.

Other staffing adjustments are needed to address the attrition of FSNs/PSCs within the industry groups, the SCO's and DSCO's offices, and the Commercial Information Center. The Center handles a large volume of external inquiries for information and is a valuable resource for industry groups internal to the post, and seems to be understaffed with only one staff member.

Although the post's Administrative Group was understaffed for much of 1999, it is currently overstaffed, since the two experienced staff members who were on extended leave have recently returned, thus enabling the post to free up resources currently in the group. Finally, FSNs posted at each of US&FCS France's three constituent posts (Lyon, Marseilles, and Strasbourg) are being underutilized, as they currently have only outreach responsibilities.

Given these factors, we have proposed an overall reorganization of personnel, functions, and reporting relationships for US&FCS France. In response to our proposal made in our briefings to management prior to issuance of our draft report, US&FCS France has expanded and improved upon our initial proposal. We agree with US&FCS's reorganization proposal and its plans to begin

---

<sup>1</sup>US&FCS France, within the process outlined under National Security Decision Directive 38 (NSDD-38) guidelines, is seeking authority to establish a permanent officer position in Toulouse. NSDD-38, which the President issued in 1982, set into place a process by which the Department of State developed guidelines for all agencies to follow in staffing at diplomatic missions and their overseas constituent posts. The directive requires all agencies operating under a Chief of Mission overseas to seek the Chief of Mission's approval for any proposed changes in the size, composition, or mandate of their staff elements. As of the date of our final report, US&FCS detailed an officer to Toulouse while the NSDD-38 process was being implemented. The position was bid in February 2000, but a permanent selection had yet to take place.

making these changes immediately, in consultation with the incoming SCO. (See page 22).

**Much Needs to be Done to Repair Damage to Post Morale and  
Loss of Post's Credibility with Other Embassy Elements**

When US&FCS headquarters finally decided to replace the post's leadership in September 1999, considerable damage had already been done to staff morale and the post's credibility within the embassy's budget, finance, and personnel offices, and with other embassy officials, including the Ambassador and Deputy Chief of Mission. We also found that there is a lack of teamwork within the post. According to post staff, junior officers, and headquarters officials who visited the post, previous management groups were inadequately engaged in post operations and, by most accounts, when they were involved, [redacted] Exemption (b)(6) [redacted] set unrealistic goals, communicated poorly with the staff, and failed to provide adequate guidance to junior officers. We are making a number of recommendations in this area to the new management group and to US&FCS headquarters in order to assist the post in raising employee morale and reestablishing credibility with the staff, other embassy elements, and the Ambassador. Our suggestions include, but are not limited to, such steps as improving the post's overall communication with the staff, improving post's overall planning and performance measurement, and having US&FCS headquarters monitor the post's internal operations closely for the next year. (See page 29). Our complete recommendations to US&FCS headquarters, ITA, and US&FCS France can be found beginning on page 33.

---

US&FCS stated that our draft report provided them with a useful and comprehensive review of the post's recent problems and was an excellent tool for new post management and headquarters to address these problems. US&FCS agreed with the bulk of our recommendations and noted that significant progress had already been made on implementing our recommendations. In addition, other ITA headquarters components—ITA's Office of Financial Management and the Office of Organization and Management Support—attached comments on several of our findings to US&FCS's response. We have made adjustments and comments in sections of our report based on these comments, where appropriate. ITA headquarters comments are included in their entirety as an attachment to this report.

## INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, and the requirements of the Omnibus Trade and Competitiveness Act of 1988, the Office of Inspector General conducted a limited inspection of U.S. and Foreign Commercial Service (US&FCS) operations in France. US&FCS management asked the Inspector General to conduct this review, in response to growing concerns about administrative and management problems that had developed in US&FCS France during the last two years.

Inspections are special reviews that the OIG undertakes to provide agency managers with information about operational issues. One of the main goals of an inspection is to eliminate waste in federal government programs by encouraging effective and efficient operations. By asking questions, identifying problems, and suggesting solutions, the OIG hopes to help managers move quickly to address problems identified during the inspection. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere. This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. Our field work was conducted from October 25 to November 5, 1999. We discussed our findings with post managers in Paris on November 5 and with the US&FCS Deputy Director General and Director of the Office International Operations on November 15. Our draft report was issued December 20, 1999, and we received comments on the report from ITA on February 8, 2000.

## PURPOSE AND SCOPE

The purpose of this inspection was to respond to the needs of US&FCS management by quickly assessing the situation at the Paris office of US&FCS France and providing management with information concerning the areas that need to be urgently addressed. As compared to a full-scale inspection of a US&FCS post, which also evaluates program effectiveness and customer services, we focused our work on areas that appeared to be the most problematic for the efficient operation of the post. More specifically, we conducted a review of (1) internal controls over Operations and Administration funds, (2) controls over deposit funds, (3) the appropriateness of the post's organizational structure, (4) International Cooperative Administrative Support Services (ICASS) charges, (5) management of the post's physical assets (e.g., official vehicles, cellular phones, and equipment), (6) various personnel matters, and (7) other issues related to management of the post.

In conducting the inspection, we (1) reviewed the organizational structure and operating approaches used in administering activities at the post; (2) interviewed appropriate officials of ITA, US&FCS, the State Department, and other agencies and organizations relevant to US&FCS operations in France; (3) examined pertinent files and records relating to the post's operations; and (4) in cooperation with a US&FCS headquarters official, conducted a full analysis of the post's financial status.

## BACKGROUND

France, with the world's fourth largest industrial economy, is one of the United States' most important political, cultural and economic partners. Relations between the United States and France are cordial and very active, and mutual visits by high-level officials are conducted on a regular basis. France and the United States share common values and have parallel policies on most political, economic, and security issues. According to the U.S. Department of State, differences are discussed frankly and have not been allowed to impair the pattern of close cooperation that characterizes relations between the two countries. Economically, the relationship between the two countries is close and mutually beneficial. In 1998, U.S. exports to France totaled \$18 billion, and imports were valued at about \$24 billion. France is the United States' ninth largest trading partner in the world and its third largest market in Europe (after the United Kingdom and Germany).

### Paris Is a Visible and Important Post in the US&FCS Network

US&FCS has its eighth largest post in France, with a budget of \$1.9 million in FY 1999. At the time of our review, the post employed 6 American officers (including the officer assigned to the Organization for Economic Cooperation and Development office in Paris), 12 Foreign Service Nationals (FSNs) and 8 Personal Service Contractors (PSCs). Until recently, according to US&FCS senior officials, US&FCS France had been considered a productive export promotion post, with a dedicated and professional American and FSN staff. US&FCS Paris is not only one of the most desirable postings for officers, but is also among the most visible in US&FCS, due to its large, well-known trade events, such as the Paris Air Show, and a constant stream of high-level, official visitors.

### Poor Leadership Results in an Extraordinary and Rapid Decline in Operations

Before our arrival in Paris in October 1999, according to internal reports of US&FCS, the post began to suffer the effects of poor leadership and ineffective management due to changes that occurred in the top managers beginning in 1998. These changes reportedly touched off a chain of events that turned what was a highly regarded post into one that was beset with significant internal problems. Internal documents and interviews with both post and headquarters officials indicated that, beginning in 1998, there was an increasing lack of engagement in day-to-day post activities.

Exemption (b)(6)

contributed to a rapid deterioration of internal morale, damage to the post's reputation inside and outside the embassy, and serious problems in internal administrative matters. During our review, we were given numerous examples of

Exemption (b)(6)

We also held discussions with the former SCO and DSCO concerning the events of the preceding year.

Exemption (b)(6)

Exemption (b)(6) Exacerbates Post's Problems

Exemption (b)(6)

Continuing Post Crisis Prompts Decisive Actions by US&FCS

Exemption (b)(6)

**Despite Internal Turmoil, Key Performance Measures Remained Stable**

Based on our limited review of the post's programmatic performance data, the post's productivity remained relatively steady during FY 1999, despite the turmoil and changes at the post. For example, success stories in FY 1999 exceeded the total in FY 1998, in part because of the SCO's emphasis on such reporting. Assessments by headquarters officials also indicated that the post's FSN/PSC staff maintained their professionalism and dedication during this period. However, there were increasing indications of financial errors and mismanagement. Also, the lack of effective management of the post had, apparently, been a significant factor in the loss of experienced staff.

**US&FCS Headquarters Takes Action**

Finally, in September 1999, US&FCS headquarters assigned the SCO from Rome, Italy, to provide immediate leadership in Paris and guide the post on a temporary basis until replacement senior managers could be assigned to Paris. The SCO on temporary duty in Paris has addressed immediate problems and assisted in the management transition. He has had an immediate and positive effect on US&FCS operations and morale, as well as on rebuilding relations with the embassy. In addition, US&FCS headquarters quickly selected a new SCO and DSCO for Paris. The new DSCO arrived in Paris in early November, literally days after selection, and immediately began work to address problems that required immediate attention. The new SCO arrived at post in February 2000.

## OBSERVATIONS AND CONCLUSIONS

In general, we found that the post has a very serious morale problem, an ineffective organizational structure that needs adjustment, and serious financial and administrative problems that need to be resolved. While the lack of leadership and appropriate oversight on the part of two previous sets of senior managers was the primary cause of most of the problems, the post's difficulties have increased because some staff have resigned, the post is not functioning well as a team, financial records and procedures are in disarray, and relations with embassy elements are poor. Nevertheless, we believe that there is reason to be optimistic as the new management team takes over the post, although much work needs to be done to reestablish the reputation of the post within the embassy, address lingering financial and administrative errors, as well as reestablish positive and effective management and teamwork internally.

### **I. Management Neglect and Limited Resources Led to Problems in Financial and Administrative Operations**

Our review of US&FCS France's handling of the financial and administrative operations uncovered a series of problems that began in FY 1998 as a result of two primary factors. First, successive management groups have inadequately monitored US&FCS France's financial operations and administrative responsibilities. [redacted] not adequately engaged in the internal operations and [redacted] Exemption (b)(6) In addition, limited resources in the Administrative Group for much of FY 1999 left the remaining staff short-handed and incapable of handling all financial and administrative functions. The handling of multiple high-level official visitors, as well as the implementation of two new financial systems—an electronic credit card collection system and an overseas transaction database—also contributed to the problems we detected.

The specific problems that we found in the financial and administrative areas included the following: Adequate internal controls were not in place; policies, procedures, and regulations were not adhered to; multiple errors in the FY 1999 trust fund data occurred; questionable expenditures were made; unliquidated obligations were not deobligated in a timely manner; personnel matters were not handled appropriately; and relationships both inside the operation and with outside parties deteriorated. In addition, we noted areas where interagency support services under ICASS, could be reduced to save costs. We are making significant recommendations to the new management team to rectify problems in FY 1999 and to ensure that the post's finances are handled more appropriately this fiscal year. In addition, we are suggesting adjustments in the organizational structure to better manage the financial and administrative operations.

Exemption (b)(6)



Exemption (b)(6)



Already short on resources, the Administrative Group faced additional challenges with the multiple visits from senior departmental and other officials, including the Secretary of Commerce (twice) and the Under Secretary for International Trade (six times). The post had to arrange logistics and procure services for the visits. In all but one visit, the cables from Washington authorizing the post to obligate funds for services arrived either during the visit, after the visit, or with the incorrect information. Because of this, funds were not always obligated before services were received which violates procurement regulations and is not in accordance with the *Foreign Affairs Manual* (4 FAM

2

Exemption (b)(6)



Financial Management). As a result, the embassy General Services Office and Budget and Fiscal Office would not process requests for some of the purchase orders or pay invoices associated with these visits (see the section below on purchase cards for additional information). In some instances, the visiting delegations exceeded their authorizing budgets or needed to obtain additional services once in country, and again, the Budget and Fiscal Office would not process invoices. The amount of time devoted to trying to sort out the problems with headquarters and other embassy offices put additional burdens on a limited administrative staff. This has been a problem that we have also noted in other post reviews. Given the importance of this issue to this post and others, we have made recommendations to ITA concerning the handling of such visits.

In addition to being short-handed, the Administrative Group faced the additional hurdles of implementing an electronic credit card collection system and a new system to monitor overseas transactions (Overseas Transaction Database) in FY 1999. Although these systems are designed to process and track finances more effectively, they required numerous hours from the administrative staff, as well as industry specialists, to process and record transactions, and resolve discrepancies in data. Inevitably, a few errors occurred, as noted below under the section on FY 1999 trust fund data.

*Adequate Internal Controls Were Not in Place*

Previous management did not implement good internal control systems to ensure that (1) obligations and costs are in compliance with applicable law; (2) funds, property, and other assets are safeguarded against fraud, waste, and abuse; and (3) revenues and expenditures applicable to agency operations are recorded and accounted for, as required by the Federal Managers' Financial Integrity Act of 1982. Internal control systems are organizational structures, operating procedures, and administrative practices adopted by all levels of management to provide reasonable assurance that programs and administrative activities are effectively carried out.

In several areas, the post did not meet the key standards of internal control systems, as defined by the General Accounting Office. Specifically, qualified and continuous supervision was not provided, as is evident in the problems discussed below. Good records were not maintained during FY 1999, documenting transactions and events, especially for trust funds. In addition, some transactions were not coded properly to reflect accurate fiscal data. Specifically, Gold Key Service expenses were charged to the business facilitation services account. We also noted that other deposit fund expenses charged to the purchase card were not coded (see section II for additional information).

Management also did not ensure that key duties were separated. In particular, in several instances we found that the administrative assistant was both the authorizing and approving official for procurements. We also found transactions and events executed by persons acting outside their scope of authority. For example, on numerous occasions, the American officers or the American administrative assistant sent requests for purchase orders directly to the embassy's General Services

Office. Requests for purchases should be reviewed by US&FCS management to ensure that funds are available and that the purchases are necessary.

**Financial and Administrative Policies, Procedures, and Regulations Were Not Followed**

In FY 1999, the post did not follow many of US&FCS's policies and procedures as well as government regulations that govern foreign affairs agencies. Our inspection noted weaknesses in fulfilling reporting requirements. Specifically, errors were made in weekly collection reports sent to US&FCS's Office of Trade Event Management. In some instances, credit card collections and collections for business facilitation services were not reported to the Office of Trade Event Management. Monthly obligation reports were also not reported to that office. This lapse in reporting accounts for some of the errors we noted in the reconciliation of FY 1999 trust fund data as discussed below. The post also did not make weekly deposits of user-fee collections to the embassy cashier, as required, from late October to the beginning of December 1998. On December 2, the post deposited \$7,287 in collections, which included approximately seven checks dated in October and November. In addition, the post did not sign participation agreements with all of its clients for approximately five to six months. The failure to sign participation agreements was a result of the (b)(6) wanting to "innovate" and streamline administrative procedures. However, headquarters has not changed this policy and still requires each participation agreement to be signed as it is a legally binding document formalizing payment procedures.

Other problems associated with trade events and business facilitation services that we noted included the post's failure to obtain funds authorization for the Gold Key Service and for post-initiated events in FY 1999. The post collected user fees for the Gold Key Service but did not report any expenses incurred for offering this service. The post reported collections under the FY 1998 project code and charged any expenses to the FY 1999 business facilitation services account. US&FCS France also received an FY 1996 Value-Added Tax (VAT) refund of \$97,000 from the French government and deposited it as a Gold Key Service collection, but never included this amount in a weekly collection report to Washington. A VAT refund should always be treated as a refund, not as a collection, and credited back to the events for which the post paid the VAT.

US&FCS France also had many problems with procurements and the government issued purchase and travel cards. Since September 1998, the post has committed approximately six procurement violations. In a few instances, the post entered into agreements with vendors for services but the agreements were found to be unauthorized commitments since they were not made by a contracting officer with authority to obligate government funds. In another instance, a split purchase was made. While all expenses appear to be legitimate expenses, errors were made in handling these transactions. As a result, the General Services Office and Budget and Fiscal Office would not process all of these transactions because the contractual agreements appeared to be unauthorized commitments. In a few instances, ratifications were made. In the other cases, post inappropriately charged some of the unpaid invoices to the government purchase card (see the next section concerning the use of purchase cards).

All Redactions Pursuant  
to Exemption (b)(6)

U.S. Department of Commerce  
Office of Inspector General

Final Report IPE-12428  
March 2000

We also found that the government travel card was improperly used by [REDACTED] for a personal trip. [REDACTED] was required to repay these expenses at a later date when an official from headquarters was visiting post. Although the employee eventually paid for the ticket out of his personal funds, this still represents a misuse of the government travel card.

Our inspection found that the post was lax in adhering to the regulations that pertain to government assets. For nearly three months, [REDACTED] used the US&FCS government-owned vehicle virtually every night for transportation to a local hospital and residence. [REDACTED] directed post staff to take the vehicle during a workday to pick up personal furniture, although this was never documented in the vehicle log. The *Foreign Affairs Manual* (6 FAM 228 "Use and Control of Official Vehicles") prohibits the use of a government vehicle for personal use or office-to-home transportation unless the Chief of Mission or head of the agency determines it is necessary. Such approval was not given for [REDACTED] in Paris. Other embassy officials told us that there was no sound justification to use government vehicles for personal use, given the availability of public transportation in the city. Reimbursement for the repeated trips to the hospital and residence were made by [REDACTED] near the end of FY 1999, but only after a senior official from US&FCS headquarters requested repayment. However, we noted that reimbursement for the trip to pick up personal furniture was not made by [REDACTED].

Improper use of government cellular phones also occurred. [REDACTED] had two cellular phones in his possession from approximately April to June 1999. We were told that [REDACTED] had one phone and [REDACTED] had the other. [REDACTED] eventually repaid the government for use of the cell phones in September 1999. Use of government cellular phones for personal use is a violation of the mission policy and government regulations, which state that cellular telephones may only be used for official business, whether reimbursed or not. In addition, because [REDACTED] was using the government phones for personal use, the two telephones were not available to other staff members to conduct official business.

Lastly, we noted that time and attendance records for the American staff were not controlled or monitored properly. Frequently, there were inadequate approvals for the use of annual and sick leave as well as compensatory time. In one instance, an employee received in excess of 200 hours of compensatory time in less than 6 months. While the compensatory time was mostly approved by an officer, it was not always approved in advance. We found that many of the approval sheets documenting hours requested had figures that had been altered. In addition, we noted that leave slips for officers were not used consistently and some time sheets did not have approving signatures. The new management team needs to ensure that all policies, procedures, and regulations are followed so the problems noted above are not repeated.

---

US&FCS agreed with our recommendation to hold the new SCO and DSCO responsible for ensuring that adequate internal controls are in place and all policies, procedures, and regulations are



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230  
MAR 31 2000

MEMORANDUM FOR: Dr. D. James Baker  
Under Secretary for Oceans and Atmosphere  
National Oceanic and Atmospheric Administration

FROM: Johnnie E. Frazier *Johnnie Frazier*

SUBJECT: *Opportunities Exist to Improve the Competitive Review Practices  
of OAR's Climate and Atmospheric Research Program  
CFDA No. 11.431  
Final Audit Report No. STL-10949-0-0001*

The Office of Inspector General has completed a performance audit of the National Oceanic and Atmospheric Administration's solicitation, review, and selection process for its discretionary financial assistance awards under OAR's Climate and Atmospheric Research Program, classified as No. 11.431 in the *Catalog of Federal Domestic Assistance*, for fiscal year 1997. The final audit report is attached. The executive summary of the report is on page i and recommendations for your action are begin on page 27.

Our review concluded that the Office of Global Programs (OGP), a unit of NOAA's Office of Oceanic and Atmospheric Research (OAR), had developed and published merit-based evaluation criteria and application solicitation and review procedures that met the Department's minimum requirements contained in Departmental Administrative Order 203-26 and were generally adequate. However, although OGP treated letters of intent (LOI) like full proposals by evaluating them against established evaluation criteria, it did not ensure that each LOI received an independent, objective review by one or more review panels consisting of at least three people, as the DAO requires. In addition, OGP did not consistently follow established review procedures in evaluating full applications. Finally, selection practices need to be improved by requiring additional documentation and justification for certain award decisions.

In response to the draft report, NOAA agreed that its reviews of proposed OGP awards should determine compliance with Department and NOAA competitive requirements. However, NOAA did not agree with the findings on application review procedures, award justifications, and NOAA reviews. NOAA believes that OAR's actions were in compliance with NOAA and Department policy and responsive to the research needs of the program. NOAA's response is summarized in the executive summary and in the body of the report. We have also attached NOAA's response, without attachments, as Appendix III to the report.

Please provide your audit action plan addressing the recommendations within 60 calendar days, in accordance with Department Administrative Order 213-5. The plan should be in the format specified in Exhibit 7 of the DAO. Should you have any questions regarding the preparation of the audit action plan, please contact me on (202) 482-4661 or Ray McIntosh, Regional Inspector General, Seattle Regional Office, on (206) 220-7970.

We appreciate the cooperation and courtesies extended to us by your staff during the audit.

Attachment

cc (w/att): Scott Gudes, Deputy Under Secretary for Oceans and Atmosphere  
Dr. David L. Evans, Assistant Administrator for Oceanic and Atmospheric Research,  
NOAA  
Sonya G. Stewart, Chief Financial Officer/Chief Administrative Officer, NOAA  
Barbara Martin, Chief, Audit and Internal Control Staff Office, NOAA  
Linda J. Bilmes, Chief Financial Officer and Assistant Secretary for Administration  
Susan Sutherland, Director, Office of Executive Assistance Management

**U.S. DEPARTMENT OF COMMERCE**  
***Office of Inspector General***

---



***NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION***

*Opportunities Exist to Improve  
the Competitive Review Practices  
of OAR's Climate and Atmospheric  
Research Program  
CFDA No. 11.431*

*Audit Report No. STL-10949-0-0001/March 2000*

*Office of Audits, Seattle Regional Office*



## TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	4
FINDINGS AND RECOMMENDATIONS .....	6
I. OGP Developed and Published Merit-Based Evaluation Criteria .....	6
II. OGP Solicitation Process Exceeded the Department's Requirements and Generated a Nationwide Response .....	8
III. OGP's Application Review Practices Did Not Meet Competitive Review Requirements For Letters of Intent .....	9
NOAA Response .....	11
OIG Comments .....	11
IV. OGP's Application Review and Selection Procedures Were Not Followed .....	12
A. Proposal evaluations were not adequately documented .....	14
B. Not all proposal evaluation criteria were considered by review panels .....	14
C. Evaluated proposals lacked documentation of rank ordering .....	15
D. Decisions to fund lower-rated proposals over higher-rated proposals were not justified or documented .....	16
NOAA Response .....	17
OIG Comments .....	19
V. Noncompetitive Continuation Agreements to Existing Awards Lacked Adequate Justification .....	21
NOAA Response .....	24
OIG Comments .....	24
VI. NOAA Reviews of Proposed OGP Awards Were Not Effective .....	26



NOAA Response .....	27
VII. Conclusions .....	27
VIII. Recommendations .....	27
APPENDIX I - OGP Procedures for Solicitation, Review and Selection of Awards	
APPENDIX II - Grants and Cooperative Agreements Reviewed for Fiscal Year 1997	
APPENDIX III - NOAA Response to Draft Report	

## EXECUTIVE SUMMARY

The Office of Inspector General conducted an audit of the fiscal year 1997 criteria, procedures, and practices for soliciting, reviewing, and selecting applications for financial assistance under the National Oceanic and Atmospheric Administration's Office of Oceanic and Atmospheric Research's (OAR) Climate and Atmospheric Research Program, classified as No. 11.431 in the *Catalog of Federal Domestic Assistance*. The program is administered by OAR's Office of Global Programs (OGP). The audit was conducted as part of a Department-wide review of Commerce's discretionary financial assistance programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation.

Discretionary financial assistance programs are those programs for which federal agencies have the authority to independently determine the recipients and funding levels of the awards. These programs involve a significant portion of the Commerce Department's budget and operations, approximately \$1 billion annually.

Through the Climate and Atmospheric Research Program, OGP provides financial assistance to improve the nation's ability to observe, understand, predict, and respond to changes in the global environment. Assistance is provided to researchers, both inside and outside of NOAA, primarily for one- to three-year periods in the form of grants, cooperative agreements, and fund transfers.

In fiscal year 1997, OGP made 169 awards, including 68 new grants, 95 continuation grants, 2 new cooperative agreements, and 4 continuation amendments to existing cooperative agreements, for \$35.1 million. The 70 new awards were funded from 613 applications received in response to the program's fiscal year 1997 solicitation. The 99 continuation amendments to existing awards were made based on performance and did not require an application.

We examined 92 of the 169 awards OGP made in fiscal year 1997, including 61 new grants, 27 continuation grants, 1 new cooperative agreement, and 3 continuation amendments to existing cooperative agreements, totaling \$28.8 million.

We found that OGP developed and published merit-based evaluation criteria and solicitation procedures that met the Department's minimum requirements contained in Departmental Administrative Order 203-26 and were generally adequate. We were pleased to note that OGP:

- Had appropriate, merit-based criteria that were consistent with the objectives of the competitive program to evaluate proposals, as required by Section 4.02a of DAO 203-26. (See page 6.)
- Used a solicitation process that was adequate to obtain a nationwide response, as required by Section 4.02b of DAO 203-26. (See page 8.)

- Developed review and selection procedures that were sufficient, if followed, to provide a competitive, independent and qualified review and selection of each application, as required by Section 4.02h of DAO 203-26. (See page 12.)

However, OGP's practices in evaluating letters of intent did not comply with the DAO's requirement that each application receive an independent, objective review by a panel. In addition, OGP did not consistently follow its own procedures in evaluating full proposals. Also, selection procedures need to be improved by requiring sufficient documentation and justification for certain award decisions. Specifically, we found that OGP:

- Treated letters of intent (LOI) like full proposals by evaluating them against established evaluation criteria but did not ensure that each LOI received an independent, objective review by one or more review panels consisting of at least three people, as required by Section 4.02h.1 of DAO 203-26. (See page 9.)
- Did not consistently follow established procedures in evaluating and documenting application reviews, as required by Sections 4.02h and 4.02l of DAO 203-26. Specifically, application reviews were not adequately documented, were not completed using all six required criteria, and had no evidence of being rank-ordered by evaluation score. In addition, the justifications for funding lower-rated proposals over other higher-rated ones were not documented. (See page 12.)
- Did not have complete justification for funding two noncompetitive awards, as required by DAO 203-26. (See page 21.)

As a result, OAR cannot provide reasonable assurance that financial assistance award decisions made under the program were merit-based or that NOAA's overall policy of seeking maximum program competition was met.

We also found that the NOAA Grants Management Division did not provide adequate oversight of OAR's administration of the program. (See page 26.)

In response to our draft report, NOAA concurred with our view that its reviews of proposed OGP awards should determine compliance with Department and NOAA competitive requirements. However, NOAA did not agree with our findings regarding the adequacy of OGP's application review procedures or award justifications or NOAA's reviews of proposed OGP awards. NOAA believes that OAR's actions were in compliance with NOAA and Departmental policy and responsive to the research needs of the program. We do not agree with NOAA's assertion that it has complied with the competitive review *requirements of DAO 203-26* because (1) application review procedures allowed potential proposals to be eliminated without benefit of an independent, objective review by one or more

review panels, (2) proposal evaluations were not adequately documented, (3) required evaluation criteria were not always used to evaluate proposals, (4) proposals had no evidence of being rank ordered, and (5) justifications for funding lower-rated proposals over higher-rated proposals were not documented. NOAA's response is summarized in the body of the report and provided, without attachments, as Appendix III to this report.

We recommend that the Assistant Administrator for Oceanic and Atmospheric Research ensure that:

- (1) All proposals, including letters of intent, are independently and competitively evaluated, with selection decisions justified and adequately documented in the proposal files, in accordance with Section 4.02h of DAO 203-26.
- (2) Reasons for selecting proposals for funding that are ranked lower than other proposals not funded are thoroughly documented in writing, as required by Section 4.02h of DAO 203-26.
- (3) Documented market searches are performed to verify or confirm that there is only one source for anticipated noncompetitive sole-source awards.

We also recommend that the Chief Financial Officer/Chief Administrative Officer, as the Director of the Office of Finance and Administration, which includes the Grants Management Division, require that grants officer reviews of proposed noncompetitive awards include procedures designed to objectively determine compliance with Department and NOAA competitive requirements.

Our recommendations begin on page 27.

## INTRODUCTION

The National Oceanic and Atmosphere Administration's (NOAA) mission is to describe and predict changes in the Earth's environment and to conserve and manage wisely the nation's coastal resources. The Office of Oceanic and Atmospheric Research's (OAR) mission is to provide leading-edge scientific information and tools toward a clearer understanding of the oceans and atmosphere and how human activity can affect them. NOAA, through OAR's Office of Global Programs (OGP), administers the Climate and Atmospheric Research Program, classified as No. 11.431 in the *Catalog of Federal Domestic Assistance* (CFDA). OGP refers to the Climate and Atmospheric Research Program as the Climate and Global Change Program.

This discretionary funding program provides financial assistance to researchers, both inside and outside of NOAA, to improve the nation's ability to observe, understand, predict, and respond to changes in the global environment.

The National Climate Program Act, as amended (15 U.S.C. 2901), authorizes the Secretary of Commerce to provide financial assistance for climate-related activities that are needed to meet the goals and priorities of the program. OAR established rules to govern the award of financial assistance under the Act through the Climate and Atmospheric Research Program.

General information on the fiscal year 1997 Climate and Atmospheric Research Program competition was published in the *Federal Register* on June 17, 1996, and in OGP's program notice for fiscal year 1997. In fiscal year 1997, OGP made 169 awards, including 68 new grants, 95 continuation grants, 2 new cooperative agreements, and 4 continuation amendments to existing cooperative agreements for \$35.1 million. The 70 new awards were funded from 613 applications received in response to the program's fiscal year 1997 solicitation. Continuation amendments to existing awards are made based on performance and do not require an application.

Discretionary assistance programs are those for which federal agency officials have the authority to decide (1) which eligible applicants will receive awards, and (2) how much financial assistance that will be awarded. Competition is generally recognized as the most effective means of ensuring that financial assistance awards are made on the basis of merit. One of the primary purposes of the Federal Grant and Cooperative Agreement Act (31 U.S.C. §6301) is to encourage competition in the award of federal financial assistance to the maximum extent practicable.

The Office of Management and Budget (OMB) has issued guidelines on administering competition-based financial assistance programs for use by federal agencies. An interagency study group, convened in 1979 by OMB to examine competition in financial assistance programs, determined that financial assistance award processes, to ensure effective competition, should include three basic elements. These elements, which were discussed in OMB's June 1980 report, *Managing Federal Assistance in the 1980's*, are still applicable, and include:

- Widespread solicitation of eligible applicants and disclosure of essential application and program information in written solicitations;
- Independent application reviews that consistently apply written program evaluation criteria; and
- Written justifications for award decisions that deviate from recommendations made by application reviewers.

Also, OMB has issued the following circulars which set forth the policies and procedures to be followed in administering federal financial assistance programs:

- OMB Circular A-89, *Federal Domestic Assistance Program Information*, implements the Federal Program Information Act (P.L. 95-220) requiring agencies to systematically and periodically collect and distribute current information to the public on federal domestic assistance programs, which is accomplished through the semiannual publication of the CFDA.
- OMB Circular A-102, *Grants and Cooperative Agreements with State and Local Governments*, requires agencies to provide the public with advance notice in the *Federal Register*, or by other appropriate means, of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute. Under A-102, when time permits, an agency must provide the public with an opportunity to comment on funding priorities. Finally, A-102 requires all grant awards over \$25,000 to be reviewed for consistency with agency priorities by a policy level official.
- OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, requires agencies to provide the public with advance notice of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute.
- OMB Circular A-123, *Management Accountability and Control*, implements the Federal Managers' Financial Integrity Act (P.L. 97-255) requiring agencies to establish management controls for federal programs and operations, including financial assistance programs, that provide reasonable assurance that activities are effectively and efficiently managed to achieve agency goals.

Commerce has relied on OMB's guidelines and circulars in developing and issuing policies and procedures for its discretionary funding programs. Department Administrative Order (DAO) 203-26, *Department of Commerce Grants Administration*, requires that (1) all Commerce financial assistance awards be made on the basis of competitive reviews unless a special waiver is obtained, (2) competitive review processes meet minimum standards outlined in the DAO, and (3) all Commerce

agencies publish, at least annually, a notice in the *Federal Register* announcing the availability of funding, soliciting award applications, and specifying the criteria and the process to be used in reviewing and selecting applications for funding. In addition, agency-initiated noncompetitive or unsolicited awards should be adequately justified in writing as part of an internal control system defined in OMB Circular A-123 and required by DAO 203-26, Section 4.02i.

The chart presented below depicts the basic process and controls for the solicitation, evaluation, and selection of financial assistance awards as set forth in DAO 203-26. The processes we reviewed during our audit are color coded for this chart and the OGP process chart located in Appendix I.

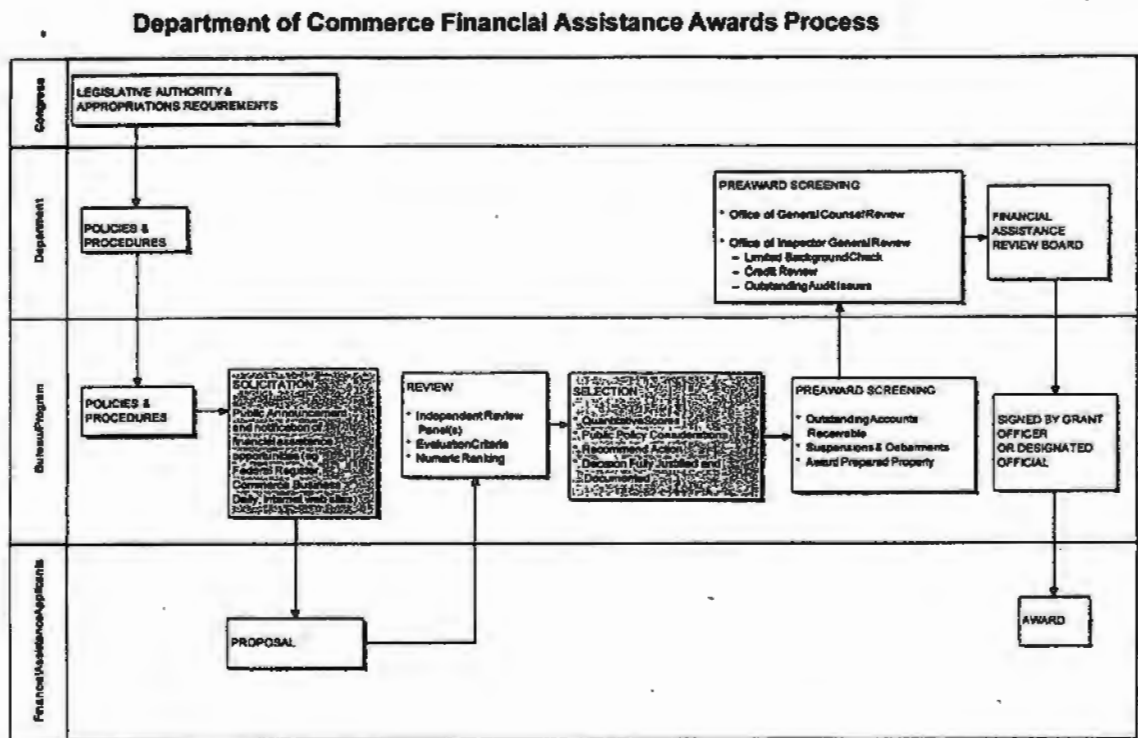


Figure 1

## PURPOSE AND SCOPE

This audit was conducted as part of a comprehensive review of the Department of Commerce's discretionary funding programs initiated at the request of the Chairman of the Senate Commerce, Science, and Transportation Committee. The Chairman requested that the Inspectors General of the Departments of Commerce and Transportation and the National Science Foundation review the discretionary funding programs of their respective agencies to assess the manner in which discretionary funding decisions are made. More specifically, the Chairman requested that each IG review and report on the criteria developed, either statutorily or administratively, to guide agency officials in making discretionary spending decisions, and on the extent to which the criteria are appropriately applied.

We are conducting our Department-wide review in two phases: a survey phase and an individual program audit phase. During the survey phase, we identified and examined the body of laws, regulations, and other guidance applicable to the administration of federal financial assistance programs. We also examined the authorizing legislation provided by Department officials for each Commerce financial assistance program and classified each program as either a "full discretion" program or a "limited discretion" program, based on the extent to which the legislation limits the agency's authority to independently determine the recipients and funding levels of the awards made under the program. Finally, we examined fiscal year 1997 appropriations legislation to identify legislatively mandated awards and reviewed accompanying conference and committee reports to identify projects recommended for funding. No legislatively mandated awards were found.

During the second phase of our review, we are conducting individual audits of the solicitation, review, and selection processes of each program we have classified as a "full discretion" program, including the Climate and Atmospheric Research Program. We are evaluating the adequacy of each program's established award criteria and procedures for evaluating individual applications. For those programs with procedures deemed to be adequate, we are ascertaining whether they were followed in making awards in fiscal year 1997. For those programs with procedures considered to be inadequate or lacking, we are reviewing how the fiscal year 1997 award decisions were made. Finally, we are examining any legislatively mandated projects identified for each program and determining their significance and impact on fiscal year 1997 award decisions. We plan to issue individual reports, with any appropriate recommendations, on each program, followed by a capping report summarizing the results of the individual audits and providing recommendations for the Department and/or its bureaus.

On July 21, 1998, the Acting Inspector General and the Chief Financial Officer and Assistant Secretary for Administration testified before the Senate Commerce, Science, and Transportation Committee on the Department's discretionary funding programs. The Acting IG reported on the survey phase of the OIG's review, and discussed some of the preliminary observations from the individual program audits.

This performance audit focused on funding decisions made during fiscal year 1997 under the Climate and Atmospheric Research Program. Specifically, we:



- Reviewed the program authorizing legislation and information published in the CFDA and provided by NOAA's Office of Legislative Affairs to identify criteria to be used in making funding decisions.
- Reviewed policies and procedures for soliciting, reviewing and selecting applications for funding (see Appendix I for flowchart of process). We also reviewed NOAA's *Grants and Cooperative Agreements Manual* as it applied to the solicitation, review, and selection process and assessed whether it was adequate and in accordance with DAO 203-26, *Department of Commerce Grants Administration*, and Office of Federal Assistance Financial Assistance Notice No. 17, *Department of Commerce Guidelines for the Preparation of Federal Register Notices Announcing the Availability of Financial Assistance Funds – Requests for Applications*.
- Compared NOAA/OGP's award procedures with its practices to determine if the process contained adequate internal controls to provide for competitive, merit-based awards.
- Examined pertinent documents in individual program award files to determine if Departmental and NOAA policies and procedures were followed. We reviewed 92 of the 169 awards that OGP made in fiscal year 1997: 61 new grants, 27 continuation grants, 1 new cooperative agreement, and 3 continuation amendments to existing cooperative agreements, for a total of \$28.8 million. A list of the 92 grants and cooperative agreements reviewed is provided at Appendix II.
- Interviewed NOAA/OGP program office officials concerning NOAA/OGP's solicitation, review, and selection procedures for letters of intent and full proposals.
- Examined fiscal year 1997 appropriations legislation to identify legislatively mandated projects and the accompanying committee and conference reports to identify projects recommended for funding under this program.

We did not rely on computer-based data supplied by OAR and the Department's Office of Finance and Administration as a basis for our audit findings and recommendations. Consequently, we did not conduct tests of either the reliability of the data or of the controls over the computer-based system that produced the data.

We performed the audit fieldwork at OAR's Office of Global Programs and NOAA's Grants Management Division in Silver Spring, Maryland, from June 1998 to January 1999. We conducted the audit in accordance with generally accepted government auditing standards, and under authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

## FINDINGS AND RECOMMENDATIONS

We found that OGP had merit-based evaluation criteria for evaluating program applications and that OGP's procedures for the solicitation of financial assistance awards met the Department's requirements. OGP's efforts in soliciting applications for Climate and Atmospheric Research Program awards for fiscal year 1997 conformed with the Department's minimum requirements and generated a strong, nationwide response. In addition, OGP developed review and selection procedures that were sufficient, if followed, to provide a competitive, independent, and qualified review and selection of each application.

However, OGP's procedures and practices for the review and selection of financial assistance awards did not meet the Department's requirements. We found that (1) OGP's application review procedures did not meet competitive review requirements for letters of intent, (2) OGP did not follow application review and selection procedures for the 62 new awards we reviewed; 36 received evaluations that were not adequately documented, none were evaluated using all required criteria, none were rank-ordered by evaluation score, and in at least 10 instances the reasons for decisions to fund lower rated proposals over higher rated proposals were not documented; and (3) OGP did not adequately document its justifications for making 2 noncompetitive awards. As a result, OGP cannot provide reasonable assurance that financial assistance awards made under the program were merit-based funding decisions.

Also, we found that reviews performed by the NOAA Grants Management Division of proposed competitive and noncompetitive financial assistance awards did not question OGP's (1) failure to follow application review and selection procedures, (2) lack of documentation for funding proposals out of rank-order, and (3) lack of adequate justifications of noncompetitive awards

### I. OGP Developed and Published Merit-Based Evaluation Criteria

OGP established appropriate, merit-based review criteria for use in evaluating new applications for funding, as required by Section 4.02a of DAO 203-26. Applications were subject to a multi-stage evaluation process (see Appendix I), in which applicants were requested to submit a two-page summary letter of intent. After screening by OGP staff, full proposals were requested from selected applicants. Full proposals were to be independently reviewed on the basis of six specific evaluation criteria published in both the *Federal Register*, Volume 61, Number 117, dated June 17, 1996, and OGP's program notice for fiscal year 1997.

The *Federal Register* notice lists the following application requirements, review process, and evaluation criteria:

- (1) **Applicant Qualifications.** Applicants could be from either inside or outside of NOAA and include individuals, universities, non-profit organizations, for-profit organizations, state and local governments, and Indian Tribes.


- (2) *Letters of Intent.* Letters were limited to two pages, and were to include the name and institution of the principal investigator(s), a statement of the problem, a brief summary of work to be completed, the approximate cost of the project, and the program elements to which the proposal should be directed. Program managers were to evaluate the letters using the same criteria used for full proposals. Applicants whose letters of intent passed this initial screening stage were asked to submit full proposals.
- (3) *Full Proposals.* The following information was required for each proposal:
- A title page signed by the principal researcher and the institutional representative.
  - An abstract containing an introduction of the problem, rationale, and a summary of the work to be completed.
  - A discussion of the results of research of related projects supported by NOAA or other agencies and their relation to the proposed work.
  - A statement of work for the proposed project that identified the research problem, scientific objective, proposed methodology, relevance of the project to the goal of the Climate and Atmospheric Research Program, and specific program priority. The benefit of the project to the public and the scientific community was also to be discussed in the statement of work. A year-by-year summary of proposed work, separated into annual increments, was also to be included.
  - A detailed budget on an Application for Federal Assistance (SF 424 and 424a).
  - An abbreviated curriculum vitae.
  - A list of current and pending financial support, including project title, supporting agency with grant number, investigator time, dollar value, and duration.
  - A list of individuals qualified and suggested to review the proposal.
- (4) *Evaluation Criteria.* Each proposal was to be evaluated using the following six criteria and weights:
- Scientific Merit (20 percent): The intrinsic scientific value of the subject and the study proposed.
  - Relevance (20 percent): The importance and relevance to the goal of the Climate and Atmospheric Research Program and to the research areas listed.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

August 31, 2000

MEMORANDUM FOR: Dr. D. James Baker  
Under Secretary and Administrator  
National Oceanic and Atmospheric Administration

FROM: Johnnie E. Frazier   
SUBJECT: *Small Business Innovation Research Program*  
*Award Procedures Need Improvement*  
*CFDA No. 11.476*  
Final Audit Report No. DEN-11001-0-0001

The Office of Inspector General has completed a performance audit of the National Oceanic and Atmospheric Administration's solicitation, review, and selection process for its discretionary grants awarded in fiscal year 1997 under the Small Business Innovation Research Program, classified as No. 11.476 in the *Catalog of Federal Domestic Assistance*. The final report is attached. The executive summary of the report is on page i and recommendations for NOAA's action are on page 14.

NOAA agreed with four of the five recommendations in our draft audit report and will implement these four recommendations in future award competitions. After reviewing additional information included in NOAA's response to the draft audit report, and subsequent clarifications, we have withdrawn the fifth recommendation. NOAA's response is summarized in the executive summary, and we have attached the complete response as Appendix II to this report.

Please provide your audit action plan addressing the recommendations within 60 calendar days, in accordance with Department Administrative Order 213-5. The plan should be in the format specified in Exhibit 7 of the DAO. Should you have any questions regarding the preparation of audit action plans, please contact William R. Suhre, Regional Inspector General for Audits, at (303) 312-7650. We appreciate the cooperation extended by your staff during our audit.

Attachment

cc (w/att): Sonya G. Stewart, Chief Financial Officer/Chief Administrative Officer, NOAA  
Barbara Martin, Chief, Audit and Internal Controls Staff Office, NOAA  
Linda J. Bilmes, Chief Financial Officer and Assistant Secretary for Administration  
John Phelan, Acting Director, Office of Executive Budgeting and  
Assistance Management

***U.S. DEPARTMENT OF COMMERCE***  
***Office of Inspector General***

---

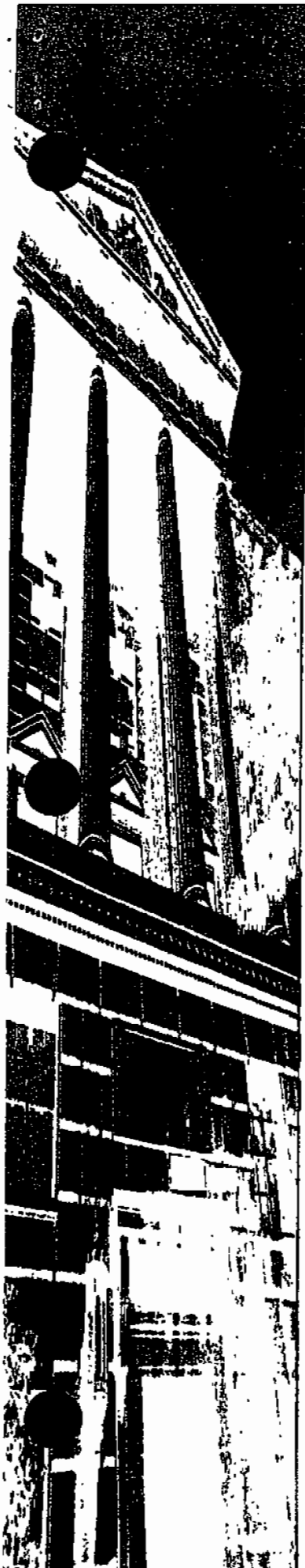


***NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION***

***Small Business Innovation Research Program  
Award Procedures Need Improvement  
CFDA No. 11.476***

***Audit Report No. DEN-11001-0-0001 / August 2000***

***Office of Audits, Denver Regional Office***



## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	5
FINDINGS AND RECOMMENDATIONS .....	8
I. NOAA Developed and Published Merit-Based Review Criteria .....	8
II. SBIR Solicitation Notice Generally Met Requirements .....	10
III. SBIR Application Reviews Did Not Meet All of the Department's Minimum Requirements for Competitive Review .....	11
IV. NOAA Did Not Disclose that a Separate Selection Process for Phase 2 Sea Grant Research Awards Was Utilized .....	13
V. Funding Instrument Finding Withdrawn .....	14
VI. Recommendations .....	14
NOAA's Response to the Draft Audit Report .....	15
OIG's Comments on NOAA's Response .....	16
APPENDIX I - Procedures for Solicitation, Review, and Selection of SBIR Awards	
APPENDIX II - NOAA's Complete Response to the Draft Audit Report	

## EXECUTIVE SUMMARY

The Office of Inspector General conducted an audit of the fiscal year 1997 criteria, procedures, and practices for soliciting, reviewing, and selecting applications for financial assistance under the National Oceanic and Atmospheric Administration's Small Business Innovation Research (SBIR) Program, classified as No. 11.476 in the *Catalog of Federal Domestic Assistance*. The audit was conducted as part of a Department-wide review of Commerce's discretionary financial assistance programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation.

Discretionary financial assistance programs are those programs for which federal agencies have the authority to independently determine the recipients and funding level of awards. These programs involve a significant portion of the Commerce Department's budget and operations, approximately \$1 billion annually.

The SBIR program is designed to stimulate technological innovation in the private sector, strengthen the role of small business in meeting federal research and development needs, increase commercial application of innovations derived from federal research, and improve the return on investment from federally-funded research for the economic benefit of the nation. Eligible applicants are for-profit small businesses whose (1) principal place of business is in the United States, (2) majority ownership is held by U.S. citizens, and (3) total number of employees, including employees of affiliates, does not exceed 500. SBIR is a three-phase program: Phase 1 is to determine the technical feasibility of ideas submitted for consideration and the quality of performance of the small business concern receiving an award; Phase 2 is the research and development or prototype development phase of proposals identified in Phase 1 as having commercial potential; and Phase 3 is the commercialization of the results of the research using non-SBIR funds. Only firms that had received Phase 1 awards may compete for Phase 2 funding. No SBIR funding may be used for Phase 3.

In fiscal year 1997, NOAA awarded five Phase 1 grants, for a total of \$249,000, and two Phase 2 grants, totaling \$399,000. In addition to the grants, NOAA provided \$1.6 million in SBIR funding in the form of procurement contracts to 12 Phase 1 projects and 5 Phase 2 projects. Because our audit concerned discretionary financial assistance programs, as opposed to contracts, we limited our review to the SBIR grants NOAA issued.

The National Institute of Standards and Technology also funds SBIR program awards under CFDA No. 11.476. In fiscal year 1997, NIST awarded 46 Phase 1 procurement contracts, totaling \$2.3 million, and 14 Phase 2 procurement contracts, totaling \$2.8 million. NIST's SBIR program does not meet the criteria of a discretionary financial assistance program because all awards were made using procurement contracts. Therefore, the NIST SBIR program was excluded from our audit.

We examined NOAA's criteria, procedures, and practices for the solicitation, review, and selection of SBIR proposals. While we found that the procedures were generally designed to result in merit-based funding decisions, in accordance with Section 4.02h of DAO 203-26, we two found areas where the procedures and practices failed to meet the minimum requirements. Specifically:

- The Department's program solicitation did not contain a statement that cost sharing is not required and will not be considered in evaluation of proposals, as required by an SBIR policy directive issued by the U.S. Small Business Administration (see page 10).
- NOAA used only two evaluators for Phase 1 proposals, even though DAO 203-26, Section 4.02h.1(d), requires a minimum of three evaluators (see page 11).

We also believe that NOAA could enhance the independence and objectivity of future SBIR competitions, by inviting reviewers from outside NOAA and the Department to participate, as allowed under Section 4.02h.1(d) of DAO 203-26.

In the draft audit report, we stated that two of NOAA's Phase 2 grants were selected noncompetitively. Neither of the two awards in question were included on the list of Phase 2 applicants provided to us by NOAA, nor were they included on the rank-ordered list of projects scored by the Phase 2 selection panel. In its response to the draft audit report, NOAA stated that the two grants were selected by a separate Phase 2 selection panel that NOAA had not disclosed to us previously. Subsequent to its response, NOAA provided additional documentation that supported its compliance with competitive selection procedures for the two grants in question (see page 13).

Our draft audit report also concluded that financial assistance awards were more appropriate funding instruments than procurement contracts for SBIR projects. We found that 10 of NOAA's 17 SBIR awards in fiscal year 1997 were in the form of firm-fixed-price procurement contracts. The remaining seven awards were grants. Of those seven grants, five were Phase 1 awards and two were Phase 2 awards. After reviewing information provided in NOAA's response to the draft audit report, we withdraw this finding and the accompanying recommendation that NOAA use financial assistance awards for all future SBIR awards (see page 14).

We recommend that the NOAA SBIR program manager ensure that:

1. Future SBIR program solicitations include language relative to cost sharing, as required by an SBA policy directive.
2. All SBIR proposals are evaluated by at least three evaluators, in accordance with DAO 203-26, Section 4.02h.1(d).



3. NOAA enhances the independence and objectivity of any future SBIR competitions by inviting reviewers from outside NOAA and the Department to participate in the evaluation of applications, as allowed under Section 4.02h.1(d) of DAO 203-26.
4. A single competitive selection process for all Phase 2 awards is utilized, or fully disclose in all published material that certain projects will be selected through a different process.

Our recommendations appear on page 14.

In response to the draft audit report, NOAA agreed to implement four of the five recommendations contained in the draft audit report. NOAA did not agree with the draft audit report recommendation that future SBIR awards be made in the form of financial assistance agreements. After reviewing additional information provided in NOAA's response to the draft audit report, and subsequent clarifications, we have withdrawn this recommendation.

## INTRODUCTION

The Department of Commerce's primary mission is to promote job creation, economic growth, sustainable development, and improved living standards for all Americans. To accomplish a portion of its mission, the National Oceanic and Atmospheric Administration administers the Small Business Innovation Research (SBIR) program, classified as No. 11.476 in the *Catalog of Federal Domestic Assistance* (CFDA). The program's objectives, as stated in the CFDA, are to stimulate technological innovation in the private sector, to strengthen the role of small business in meeting federal research and development needs, to increase the commercial application of innovations derived from federal research, and to improve the return on investment from federally-funded research for the economic benefit of the nation.

The Small Business Innovation Development Act of 1982 established the SBIR program to stimulate technological innovation in the private sector, strengthen the role of small business in meeting federal research and development needs, increase commercial application of innovations derived from federal research, and improve the return on investment from federally-funded research for the economic benefit of the nation. Eligible applicants are for-profit small businesses whose (1) principal place of business is in the United States, (2) majority ownership is held by U.S. citizens, and (3) total number of employees, including employees of affiliates, does not exceed 500. SBIR is a three-phase program: Phase 1 is to determine the technical feasibility of ideas submitted for consideration and the quality of performance of the small business concern receiving an award; Phase 2 is the research and development or prototype development phase of proposals identified in Phase 1 as having commercial potential; and Phase 3 is the commercialization of the results of the research using non-SBIR funds. Only firms that received Phase 1 awards may compete for Phase 2 funding. No SBIR funding may be used for Phase 3.

General information regarding NOAA's 1997 Phase 1 competition was published in the *Federal Register* on September 10, 1996 and in the *Commerce Business Daily* on August 21, 1996. Since only firms that are awarded Phase 1 contracts or grants may compete for Phase 2 funding, there is no public solicitation for Phase 2 proposals. In fiscal year 1997, NOAA awarded five Phase 1 grants, for a total of \$249,000, and two Phase 2 grants, totaling \$399,000. In addition to the grants, NOAA provided \$1.6 million in SBIR funding in the form of procurement contracts to 12 Phase 1 projects and 5 Phase 2 projects. Because our audit examined discretionary financial assistance programs, as opposed to contracts, we limited our review to the SBIR grants awarded by NOAA.

The National Institute of Standards and Technology also funds SBIR program awards under CFDA No. 11.476. All of the Department's SBIR awards are issued and administered by NOAA. NIST reviews SBIR proposals and makes award selections for proposals submitted in reply to NIST research topics, but reimburses NOAA \$75,000 annually to administer its awards. In fiscal year 1997, NIST awarded 46 Phase 1 procurement contracts, totaling \$2.3 million, and 14 Phase 2 procurement contracts, totaling \$2.8 million.

Discretionary financial assistance programs are those for which federal agency officials have the authority to decide (1) which eligible applicants will receive awards, and (2) how much will be awarded. NOAA's SBIR contracts and NIST's entire SBIR program do not meet the criteria of a discretionary financial assistance program because these awards were made using procurement contracts, rather than financial assistance awards. Therefore, NOAA's SBIR contracts and the NIST SBIR program are excluded from our audit.

The use of competitive selection procedures is generally agreed to be the most effective method of ensuring that financial assistance awards are made on the basis of merit. One of the primary purposes of the Federal Grant and Cooperative Agreement Act (31 U.S.C. §6301 *et seq.*) is to encourage competition in the award of federal financial assistance to the maximum extent practicable in order to fairly and objectively identify and fund, based on merit, the best possible projects proposed by applicants, and thereby more effectively achieve program objectives.

The Office of Management and Budget (OMB) has issued guidelines for administering competition-based financial assistance programs for use by federal agencies. An interagency study group, convened in 1979 by OMB to examine competition in financial assistance programs, determined that financial assistance award processes, to ensure effective competition, should include three basic elements. These elements, which were discussed in OMB's June 1980 report, *Managing Federal Assistance in the 1980's*, and are still applicable, include:

- Widespread solicitation of eligible applicants and disclosure of essential application and program information in written solicitations;
- Independent application reviews that consistently apply written program evaluation criteria; and
- Written justification for award decisions that deviate from recommendations made by application reviewers.

Also, OMB has issued the following circulars that set forth the policies and procedures to be followed in administering federal financial assistance programs:

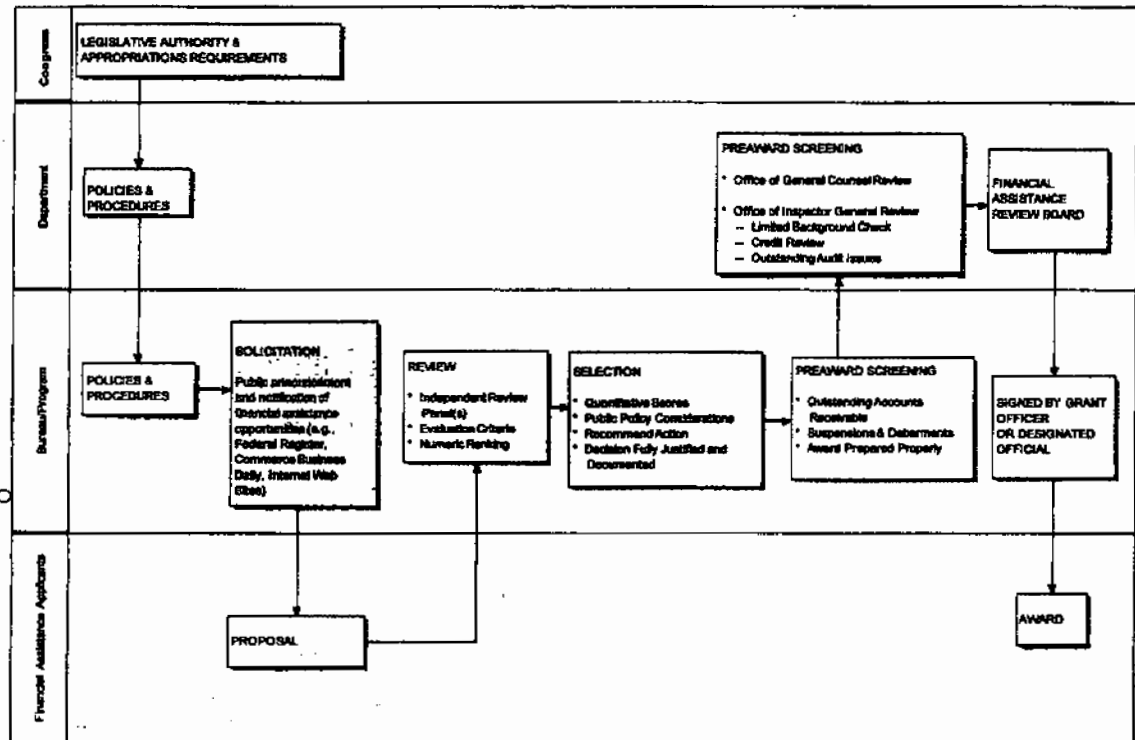
- OMB Circular A-89, *Federal Domestic Program Information*, implements the Federal Program Information Act (P.L. 95-220) requiring agencies to systematically and periodically collect and distribute current information to the public on federal domestic assistance programs, which is accomplished through the semiannual publication of the *Catalog of Federal Domestic Assistance*.

- OMB Circular A-102, *Grants and Cooperative Agreements with State and Local Governments*, requires agencies to provide the public with advance notice in the Federal Register, or by other appropriate means, of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute. Under A-102, when time permits, an agency must provide the public with an opportunity to comment on funding priorities. Finally, A-102 requires all grant awards over \$25,000 to be reviewed for consistency with agency priorities by a policy level official.
- OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, requires agencies to provide the public with advance notice of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute.
- OMB Circular A-123, *Management Accountability and Control*, implements the Federal Managers' Financial Integrity Act (P.L. 97-255) requiring agencies to establish management controls for federal programs and operations, including financial assistance programs, that provide reasonable assurance that activities are effectively and efficiently managed to achieve agency goals.

Commerce has relied on these guidelines and circulars in developing and issuing policies and procedures for its discretionary funding programs. Department Administrative Order (DAO) 203-26, *Department of Commerce Grants Administration*, requires that (1) all Commerce discretionary grant program awards be made on the basis of competitive reviews unless a special waiver is obtained, (2) competitive review processes meet minimum standards outlined in the DAO, and (3) all Commerce agencies publish, at least annually, a notice in the *Federal Register* announcing the availability of funding, soliciting award applications, and specifying the criteria and the process to be used in reviewing and selecting applications for funding.

The chart presented on the next page depicts the basic process and controls for the solicitation, evaluation, and selection of financial assistance awards as set forth in DAO 203-26. The processes we reviewed during our audit are color coded for this chart and the SBIR process chart located in Appendix I.

### Department of Commerce Financial Assistance Awards Process



## PURPOSE AND SCOPE

This audit was conducted as part of a comprehensive review of the Department of Commerce's discretionary funding programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation. The Chairman requested that the Inspectors General of the Departments of Commerce and Transportation and the National Science Foundation review the discretionary funding programs of their respective agencies to assess the manner in which discretionary funding decisions are made. More specifically, the Chairman requested that each IG review and report on the criteria developed, either statutorily or administratively, to guide agency officials in making discretionary spending decisions, and on the extent to which the criteria are appropriately applied.

We are conducting our Department-wide review in two phases: a survey phase and an individual program audit phase. During the survey phase, we identified and examined the body of laws, regulations, and other guidance applicable to the administration of federal financial assistance programs. We also examined the authorizing legislation for each Commerce financial assistance program and classified each program as either a "full discretion" program or a "limited discretion" program, based on the extent to which the legislation limits the agency's authority to independently determine the recipients and funding levels of the awards made under the program. Finally, we examined legislation related to the Department's fiscal year 1997 appropriations to identify any legislatively mandated projects. No legislatively mandated awards were found.

During the second phase of our review, we are conducting individual audits of the award solicitation, review, and selection processes of each program we have classified as a "full discretion" program, including the NOAA SBIR program. We are evaluating the adequacy of each program's established award criteria and procedures for evaluating individual applications. For those programs with procedures deemed to be adequate, we are ascertaining whether those procedures were followed in making awards in fiscal year 1997. Finally, we are examining the legislatively mandated projects identified for each program and determining their significance and impact on fiscal year 1997 award decisions. We plan to issue individual reports, with any appropriate recommendations, on each program, followed by a capping report summarizing the results of the individual audits and providing recommendations for the Department and its bureaus.

On July 21, 1998, the Acting Inspector General and the Chief Financial Officer and Assistant Secretary for Administration testified before the Senate Commerce, Science, and Transportation Committee on the Department's discretionary funding programs. The Acting IG reported on the results of the survey phase of the OIG's review, and discussed some of the preliminary observations from the individual program audits.

This performance audit focused on funding decisions made during fiscal year 1997 under NOAA's SBIR program. Specifically, we:

- Reviewed the authorizing legislation and information summarized in the CFDA to identify criteria for funding decisions.
- Reviewed policies and procedures for soliciting and reviewing proposals, and ranking and selecting applications for funding (see Appendix I for flow chart of process). We also reviewed *Department of Commerce Guidelines for the Preparation of Federal Register Notices Announcing the Availability of Financial Assistance Funds - Requests for Applications*; and DAO 203-26, *Department of Commerce Grants Administration*.
- Reviewed NOAA's practices for fiscal year 1997 to determine if the process contained adequate internal controls to provide for competitive, merit-based awards.
- Examined pertinent documents in individual program award files to determine whether NOAA policies and procedures were followed.
- Interviewed program office officials concerning NOAA's solicitation, review, and selection procedures in fiscal year 1997.
- Examined fiscal year 1997 appropriations legislation to identify legislatively mandated projects for this program.

We also reviewed two GAO reports on federal SBIR programs. In April 1998, GAO issued a report of its observations of SBIR activities in five of the ten federal agencies that sponsor SBIR programs.<sup>1</sup> GAO did not include the NOAA SBIR program in its sample. A second GAO report, covering peer review practices in several federal agencies, specifically mentioned NOAA's SBIR peer review practices.<sup>2</sup>

We did not rely upon computer-based data supplied by NOAA and the Department's Office of Executive Assistance Management as a basis for our audit findings and recommendations. Consequently, we did not conduct tests of either the reliability of the data, or the controls over the computer-based systems that produced the data.

---

<sup>1</sup> *Observations on the Small Business Innovation Research Program*, GAO/RCED-98-132, April 1998.

<sup>2</sup> *Peer Review Practices at Federal Science Agencies Vary*, GAO/RCED-99-99, March 1999.

We performed the audit fieldwork at NOAA's program office in Silver Spring, Maryland during March and August 1998. We conducted the audit in accordance with generally accepted government auditing standards, and under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.



## FINDINGS AND RECOMMENDATIONS

While we found that NOAA's SBIR criteria and solicitation, review, and selection procedures were generally designed to result in merit-based funding decisions, we found two areas where the procedures and practices failed to meet the minimum requirements of the Department and/or the U.S. Small Business Administration. Specifically:

- The Department's program solicitation did not contain a statement that cost sharing is not required and will not be considered in evaluation of proposals, as required by an SBIR policy directive issued by the U.S. Small Business Administration.
- NOAA used only two evaluators for Phase 1 proposals, even though departmental policy requires a minimum of three evaluators.

We also believe that NOAA could enhance the independence and objectivity of future SBIR competitions by inviting individuals from outside NOAA and the Department to participate in reviewing applications for funding.

### I. NOAA Developed and Published Merit-Based Review Criteria

The SBIR program established criteria that were consistent with the objectives of the program and were designed to result in merit-based funding decisions. These criteria were set forth in the program solicitation titled, *Small Business Innovation Research for FY 1997: Department of Commerce Program Solicitation (DOC 97-1)*.

The solicitation book, which is distributed to parties on an SBIR mailing list, or by request, established criteria for evaluation of Phase 1 and Phase 2 proposals for NOAA's SBIR program. Prior to receiving a technical evaluation, proposals are screened to determine whether they meet the minimum requirements for the SBIR competition. The minimum requirements for fiscal year 1997 Phase 1 awards, as set forth in Section 4.2 of the solicitation titled, "Phase 1 Screening Criteria," are:

- (a) The proposing firm must qualify as a small business, as defined in Section 2.1 of the solicitation book. If the proposing firm is a subsidiary of another firm, the limitations for small business qualification apply to all employees under the control of the parent organization.
- (b) The proposal must conform with content and format requirements established in Section 3 of the solicitation.

- (c) The proposal must be limited to one subtopic — as listed in Section 8 of the solicitation — and clearly address research for that subtopic.
- (d) Phase 1 proposal budgets must not exceed \$50,000, including subcontract costs, indirect costs, and fee (profit).
- (e) The project duration for the Phase 1 research must not exceed six months.
- (f) A minimum of two-thirds of the expenditures under each Phase 1 project must be carried out by the proposing firm.
- (g) The proposal must contain information sufficient to facilitate peer review.

If the proposal meets all of the minimum requirements, it qualifies to receive a technical evaluation based on the review criteria published in Section 4.3, "Phase 1 Evaluation and Selection Criteria." The four criteria are weighted such that the first criterion receives twice the value of each of the remaining three. In practice, the first criterion is worth up to eight points, with a maximum of four points each on the remaining three, for a maximum total score of 20 points. The Phase 1 evaluation criteria include:

- (a) The scientific and technical merit of Phase 1 research plan and its relevance to the objectives, with special emphasis on its innovativeness and originality (8 points).
- (b) The importance of the problem or opportunity and the anticipated benefits of the proposed research to the Department, and the commercial potential, if successful (4 points).
- (c) How well the research objectives, if achieved, establish the feasibility of the proposed concept and justify a Phase 2 effort (4 points).
- (d) Qualifications of the principal investigator(s), other key staff, and consultants, and the probable adequacy of available or obtainable instrumentation and facilities (4 points).

Only those firms that received Phase 1 awards may compete for Phase 2 funding. The Phase 2 evaluation criteria were published in the solicitation book, in Section 4.4, "Phase 2 Evaluation and Selection Criteria." The five criteria are weighted such that the first criterion receives twice the weight of each of the remaining four, which are equally weighted. In practice, NOAA assigns eight points to the first criterion and four points to each of the remaining four, for a maximum score of 24 points. The Phase 2 evaluation criteria for the fiscal year 1997 SBIR competition are:

- (a) The scientific and technical merit, with emphasis on innovation and originality (8 points).
- (b) The degree to which the Phase 1 objectives were met (4 points).
- (c) The commercial potential of the proposal as evidenced by (4 points):
  - 1) a record of commercialization,
  - 2) the existence of Phase 2 funding commitments from non-SBIR sources,
  - 3) existence of Phase 3 follow-on commitments, and
  - 4) the presence of other indications of commercial potential of the research.
- (d) The adequacy of the Phase 2 objectives to meet the problem or opportunity (4 points).
- (e) The qualifications of the principal investigator and other key personnel to carry out the proposed work (4 points).

Based upon our review, we concluded that the SBIR evaluation criteria were designed to result in merit-based funding decisions.

## **II. SBIR Solicitation Notice Generally Met Requirements**

We found that NOAA's solicitation procedures met the requirements published in DAO 203-26, Section 4.02. The requirements are designed to ensure widespread public notification of opportunities for financial assistance and to encourage maximum participation by qualified applicants. DAO 203-26, Section 4.02b, *Annual Public Notice*, states, "To inform the interested public, each organization unit shall publish at least annually a notice in the *Federal Register* that includes basic information for each discretionary grant program." The Department's Financial Assistance Notice No. 17 established the requirements for preparation of *Federal Register* notices. According to the DAO and the Financial Assistance Notice, minimum information to be published in a *Federal Register* notice includes the type of funding instrument to be used, a summary of the selection process, and the selection criteria, with weighting factors, if applicable. The DAO also encourages program offices to publish additional solicitation notices in publications other than the *Federal Register* to ensure wider notification.

NOAA published a Notice of Availability of Funds for the SBIR program in the *Federal Register* on September 10, 1996. We examined the notice and found that it complied, in all aspects, with the requirements of DAO 203-26, Section 4.02b and Financial Assistance Notice No. 17. In addition to

the *Federal Register* notice, NOAA also published a notice in the *Commerce Business Daily* on August 21, 1996. We commend NOAA on its efforts to widely inform the interested public of its discretionary SBIR program.

The U.S. Small Business Administration (SBA) published requirements for agencies to follow in preparing SBIR program solicitations. These requirements are contained in an appendix to SBA's *Small Business Innovation Research Program Policy Directive*, dated January 1993. In compliance with SBA's directive, the Department — through NOAA — published *Small Business Innovation Research for FY 1997: Department of Commerce Program Solicitation (DOC 97-1)*, dated October 1997. The Department's program solicitation covered both NOAA's and NIST's SBIR programs.

We found that the Department's program solicitation contained one minor instance of noncompliance with the SBA directive. SBA requires that each solicitation contain a statement that cost sharing is permitted, but not required, under the SBIR program and that any proposed cost sharing will not be a factor in consideration of an SBIR proposal. The Department's program solicitation did not contain the required statement on cost sharing; however, NOAA's *Federal Register* notice did state that cost sharing is not required. In order to fully comply with the SBA directive, NOAA should ensure that future program solicitations contain the required statement on cost sharing.

### **III. SBIR Application Reviews Did Not Meet All of the Department's Minimum Requirements for Competitive Review**

NOAA received 78 Phase 1 funding proposals in response to its fiscal year 1997 solicitation notices. Since 1997 Phase 2 award eligibility was limited to Phase 1 recipients from the previous year, there was not a public solicitation for Phase 2 proposals. NOAA received a total of 10 Phase 2 funding proposals.

We found that NOAA proposal reviewers followed the merit-based SBIR evaluation criteria for the fiscal year 1997 SBIR competitions. However, the Phase 1 proposal review policies did not fully meet the minimum requirements for competitive, merit-based reviews. Specifically, NOAA's review procedures require only two proposal reviewers for SBIR Phase 1 proposals. DAO 203-26, Section 4.02h.1(d) states that the minimum requirements for competitive review processes must include, "... **at least three persons** in each review panel which may include one or more persons who are not employees of the Federal Government." (Emphasis added.)

The SBIR program solicitation summarized the fiscal year 1997 review process in Section 4.0, "Method of Selection and Evaluation Criteria." For all Phase 1 proposals, the process begins with an initial screening to determine whether the proposal meets the minimum requirements for content and format. After screening, qualified proposals are distributed within the appropriate offices within NOAA

for technical review. There is no screening of Phase 2 proposals because only firms that received Phase 1 funding may apply. Furthermore, one of the evaluation criteria for Phase 1 funding involves tying the Phase 1 research to potential Phase 2 funding. In effect, each Phase 1 proposal serves as a pre-proposal for Phase 2 funding.

NOAA's Phase 1 and Phase 2 evaluation processes require each of the NOAA line organizations participating in the SBIR competition to designate an SBIR Working Group member to coordinate proposal reviews and to act as an interface between the SBIR program office and the line organization. The following summarizes NOAA's process for SBIR Phase 1 proposal evaluations:

- Proposals are directed to the line organization office or laboratory responsible for the area of research covered by the proposal. Two technical reviewers within the office or laboratory perform technical evaluations of the proposal(s) based on the evaluation criteria published in the solicitation. As stated above, the maximum total score from each reviewer is 20 points.
- The two reviewers' scores are combined and an average score is computed. If the two reviewers' scores differ by ten or more points, a third review is solicited, with the total score for that proposal being the average of the three reviewers' scores.
- The Working Group member collects the results of all proposal evaluations within the line organization and, in coordination with senior management in the line organization, selects the Phase 1 winners based on the line organization's research priorities and funding availability.

Based upon our review, we concluded that NOAA's SBIR Phase 1 procedures were designed to promote merit-based selections; however, the procedures did not meet the Department's minimum requirement of at least three evaluators for each competitive proposal. Although we found some instances in which NOAA used three evaluators even when there was not a 10-point difference between the first two scores, NOAA's written policies for SBIR Phase 1 evaluations need to be revised to comply with the minimum requirements of the Department. In addition, we believe that NOAA could enhance the independence and objectivity of the Phase 1 selection process by using outside proposal reviewers.

NOAA's process for Phase 2 proposal evaluations is as follows:

- Proposals are directed to the line organization office or laboratory responsible for the area of research covered by the proposal. This would be the same office that provided technical oversight of the completed Phase 1 project. A minimum of three technical reviewers within the office or laboratory perform technical evaluations of the proposal(s) based on the evaluation criteria published in the solicitation. As stated above, the maximum total score for each proposal is 24 points.

- After all Phase 2 proposals have received technical evaluations, the SBIR program office schedules oral presentations with each applicant. Each applicant is allowed a maximum of 45 minutes to present its proposal to the entire NOAA Working Group. Presenters must allow time to answer questions posed by the Working Group within the 45 minutes allotted.
- Based on the oral presentations, the results of the Phase 2 technical evaluations, and the results of each company's Phase 1 research, the Working Group members independently rank the Phase 2 proposals. Working Group members do not include proposals from their respective line organizations in their independent rankings.
- An overall ranking of the proposals is computed based on the individual rankings of the Working Group members, using a point system. For example, if there were ten Phase 2 proposals to be ranked, each member's top-ranked proposal would receive 10 points; the second-ranked proposal would receive nine points; etc.
- The top scoring proposals are selected to receive Phase 2 awards, based on availability of funding.

Based upon our review, we concluded that NOAA's procedures for SBIR Phase 2 proposal evaluations were adequate to promote merit-based selections. However, we believe that NOAA could enhance the independence and objectivity of the Phase 2 selection process by inviting proposal reviewers from outside NOAA and the Department to participate.

#### **IV. NOAA Did Not Disclose that a Separate Selection Process for Phase 2 Sea Grant Research Awards Was Utilized**

In the draft audit report, we stated that two of NOAA's Phase 2 grants were selected noncompetitively. Neither of the two awards in question were included on the list of Phase 2 applicants provided to us by NOAA, nor were they included on the rank-ordered list of projects scored by the Phase 2 selection panel. In its response to the draft audit report, NOAA stated that the two grants were selected by a separate Phase 2 selection panel that NOAA had not disclosed to us previously. NOAA's response did not include any further information on the separate selection panel.

After reviewing NOAA's response to the draft audit report, we requested additional information on the separate Phase 2 selection panel, including the panel's membership, the number of applications considered, and dates of applicant presentations. The SBIR program manager replied to our request by explaining that NOAA used a separate selection panel for Phase 2 applications related to Sea Grant SBIR research topics. The two projects funded were the only Phase 2 applications for Sea Grant topics.

After reviewing the additional documentation, we concluded that NOAA's review and selection processes for the two Phase 2 grants met minimum requirements for competitive selection. However, we are concerned that NOAA did not disclose the fact that it maintained a separate Phase 2 selection process for Sea Grants until after receiving our draft audit report. NOAA's failure to disclose the second Phase 2 selection panel gave the appearance that the Phase 2 grants were allowed to bypass the competitive selection process that other Phase 2 applicants had to follow. In the future, NOAA should either maintain a single competitive selection process for all Phase 2 awards, or fully disclose in all published material that certain projects will be selected through a different process.

#### **V. Funding Instrument Finding Withdrawn**

In the draft audit report, we stated that financial assistance awards were more appropriate funding instruments than procurement contracts for SBIR projects. We found that 10 of the 17 SBIR awards in fiscal year 1997 were in the form of firm-fixed-price procurement contracts. The remaining seven awards were grants. Of those seven grants, five were Phase 1 awards and two were Phase 2 awards. After reviewing information provided in NOAA's response to the draft audit report, we withdraw this finding and the accompanying recommendation that NOAA use financial assistance awards for all future SBIR awards.

#### **VI. Recommendations**

We recommend that the NOAA SBIR program manager ensure that:

1. Future SBIR program solicitations include language related to cost sharing, as required by SBA policy directive.
2. All SBIR proposals are evaluated by at least three evaluators, in accordance with DAO 203-26, Section 4.02h.1(d).
3. NOAA enhances the independence and objectivity of any future SBIR competitions by inviting reviewers from outside NOAA and the Department to participate in the evaluation of applications, as allowed under Section 4.02h.1(d) of DAO 203-26.
4. A single competitive selection process for all Phase 2 awards is utilized, or fully disclose in all published material that certain projects will be selected through a different process.

### **NOAA's Response to the Draft Audit Report**

In response to the draft audit report, NOAA agreed to implement four of the five recommendations. NOAA agreed to:

- include language related to cost sharing in future SBIR solicitations,
- use at least three evaluators on all SBIR proposal evaluation panels,
- enhance the independence and objectivity of future SBIR competitions by inviting reviewers from outside NOAA and the Department to participate in the evaluation of applications, and
- ensure that only those proposals that participate in the established competitive process are considered for funding.

NOAA did not agree with our recommendation that future SBIR awards be made in the form of financial assistance agreements.

NOAA's response contained "General Comments" suggesting that the draft report contained inaccurate language in the descriptions of Phase 1 and Phase 2 SBIR awards. NOAA's response stated, "In Phase 1, ideas are not submitted for (Department) consideration, as the OIG suggests. Rather, companies submit proposals that are solutions to mission-related research requirements identified by (Department) scientists." NOAA's response stated further, "Commercial potential receives only 4 out of 24 points toward funding in the Phase 2 review process. The ability to meet the stated (Department) Research and Development needs is the main factor in (Department) Phase 2 funding."

In response to our finding that two Phase 2 awards were not subjected to the same competitive process as the remaining five awards, NOAA stated that these two awards were examined by a separate Phase 2 grant review panel. According to NOAA, the review process for these two awards included oral presentations and selection by the grant review panel, based on the results of peer reviews and the oral presentations. NOAA's response stated, "The Phase 2 grant award process conforms to the published (Department) SBIR established competitive process." NOAA did not provide documentation related to the Phase 2 grant review panel—such as the panel's membership and a list of other proposals reviewed with individual reviewers' scores—in its response, but did provide this information in a subsequent submission.

NOAA agreed with our finding that two Phase 2 grants were not mentioned in the fiscal year 1997 project abstracts. NOAA's response stated that the two awards were omitted due to an "editing error."



Finally, NOAA disagreed with the draft audit report finding that financial assistance awards would be more appropriate funding instruments for SBIR awards than procurement contracts. NOAA's response pointed out that 15 U.S.C., Sec. 638 defines contracts, grants, or cooperative agreements as permissible SBIR funding agreements. NOAA stated that the statute and agency policy provide flexibility in choosing types of funding instruments.

With respect to the principal purpose of SBIR awards, NOAA's response stated, "The ... SBIR program ... is designed to specifically support work directly related to the services provided by its program staffs. The contracts awarded as a result of the SBIR solicitation process are directed toward specific government research needs." In NOAA's opinion, the principal purpose of the SBIR awards is to acquire research and development services for the direct benefit of the government. As such, NOAA considers procurement contracts to be the appropriate funding vehicle for SBIR awards.

NOAA's response is included in its entirety as Appendix II.

#### **OIG's Comments on NOAA's Response**

The source for the language in the draft audit report that NOAA's response suggested was inaccurate was, in fact, in the Department's *SBIR Program Solicitation*. The draft report stated, "SBIR is a three-phase program: Phase 1 is to determine the scientific and technical merit and the feasibility of ideas submitted for consideration; Phase 2 is the research and development or prototype development phase of proposals identified in Phase 1 as having commercial potential; ..."

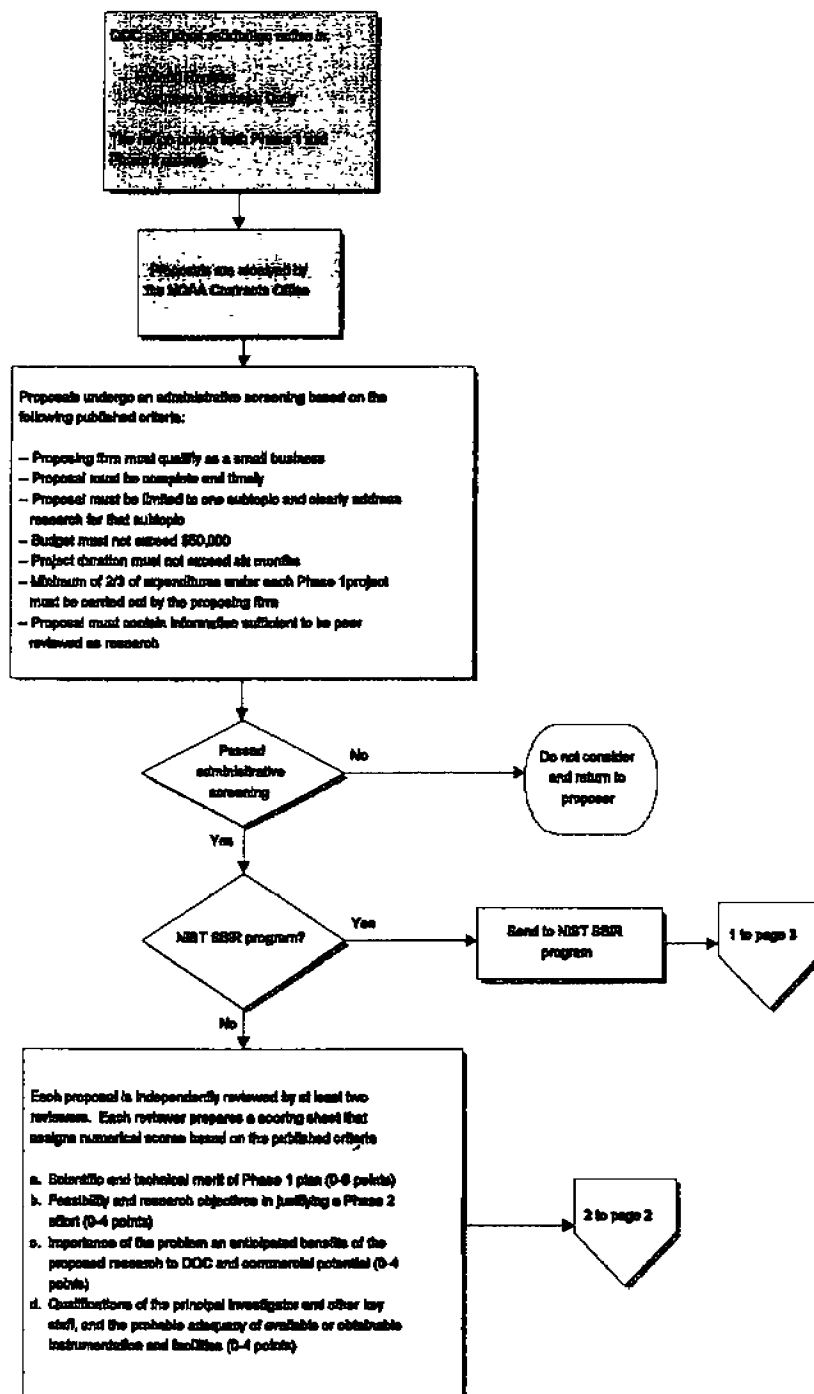
In describing the SBIR program, the Department's *Program Solicitation* stated, "Phase 1 is to determine the technical feasibility of ideas submitted for consideration and the quality of performance of the small business concern receiving an award." (Section 1.2.1, "Phase 1 - Feasibility Research") Although we believe that the draft report language accurately summarized the Phase 1 program, as described in the *Program Solicitation*, we amended the language in this final report to directly quote from the *Program Solicitation*.

The *Program Solicitation* describes Phase 2 of the SBIR program as follows, "Phase 2 is the R&D or prototype development phase." (Section 1.2.2, "Phase 2 - Research and Development") Contrary to NOAA's suggestion that commercial potential is not a major factor in the selection process, we point to the Phase 2 evaluation criteria, published in Section 4.4 of the *Program Solicitation*. "Commercial potential of the proposal" is one of the five published evaluation criteria. Commercial potential is to be weighted equally with three of the remaining four criteria, indicating that it is a major factor in the selection process. Furthermore, the Department's memorandum to SBIR Working Group members, calling for research subtopics to be included in the SBIR solicitation stated, "Subtopic descriptions ... must result in a product or process that has

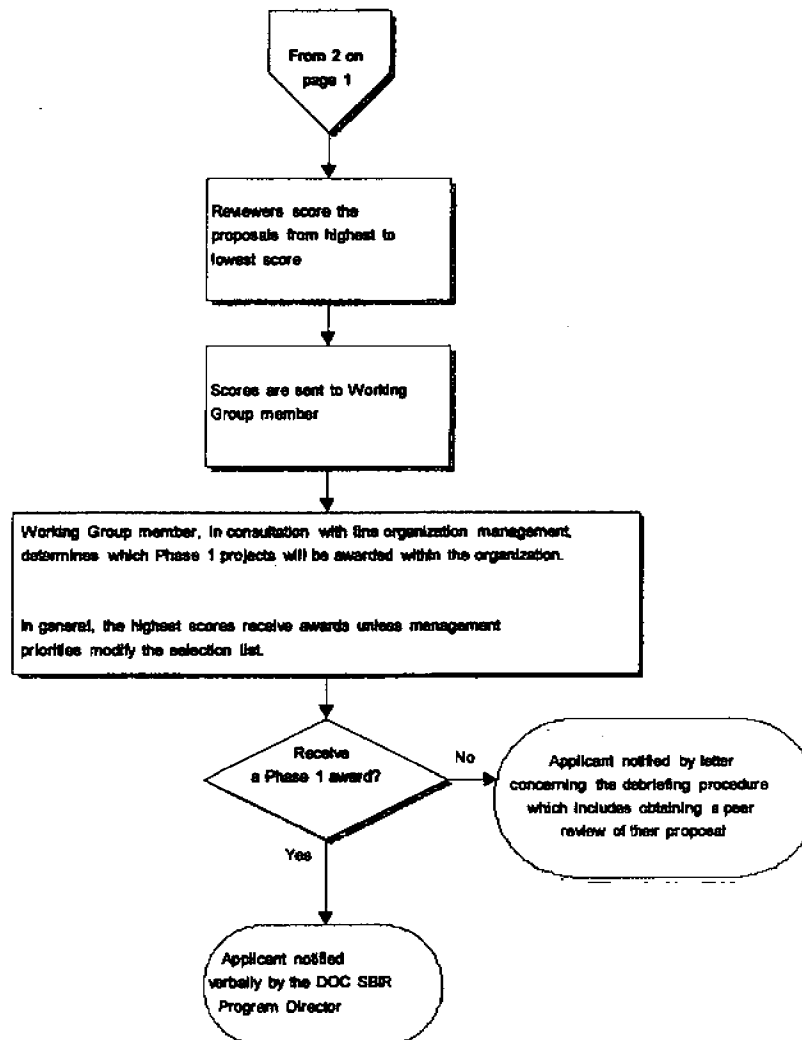
commercial potential.” We do not agree with NOAA's suggestion that our description of Phase 2 was inaccurate because it mentioned commercial potential as a factor in the Phase 2 selection process. Therefore, we did not amend the draft audit report description of Phase 2.

As stated previously, we have withdrawn our recommendation that future SBIR awards be in the form of financial assistance awards, rather than procurement contracts.

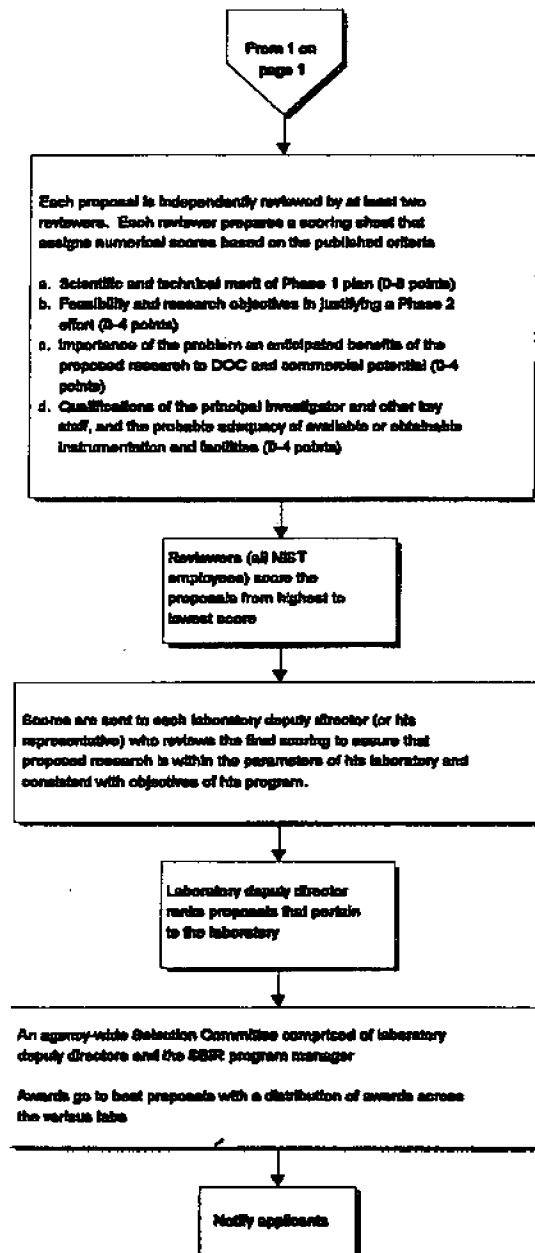
## PROCEDURES FOR SOLICITATION, REVIEW, AND SELECTION OF SBIR AWARDS



## NOAA PHASE 1 PROCEDURES

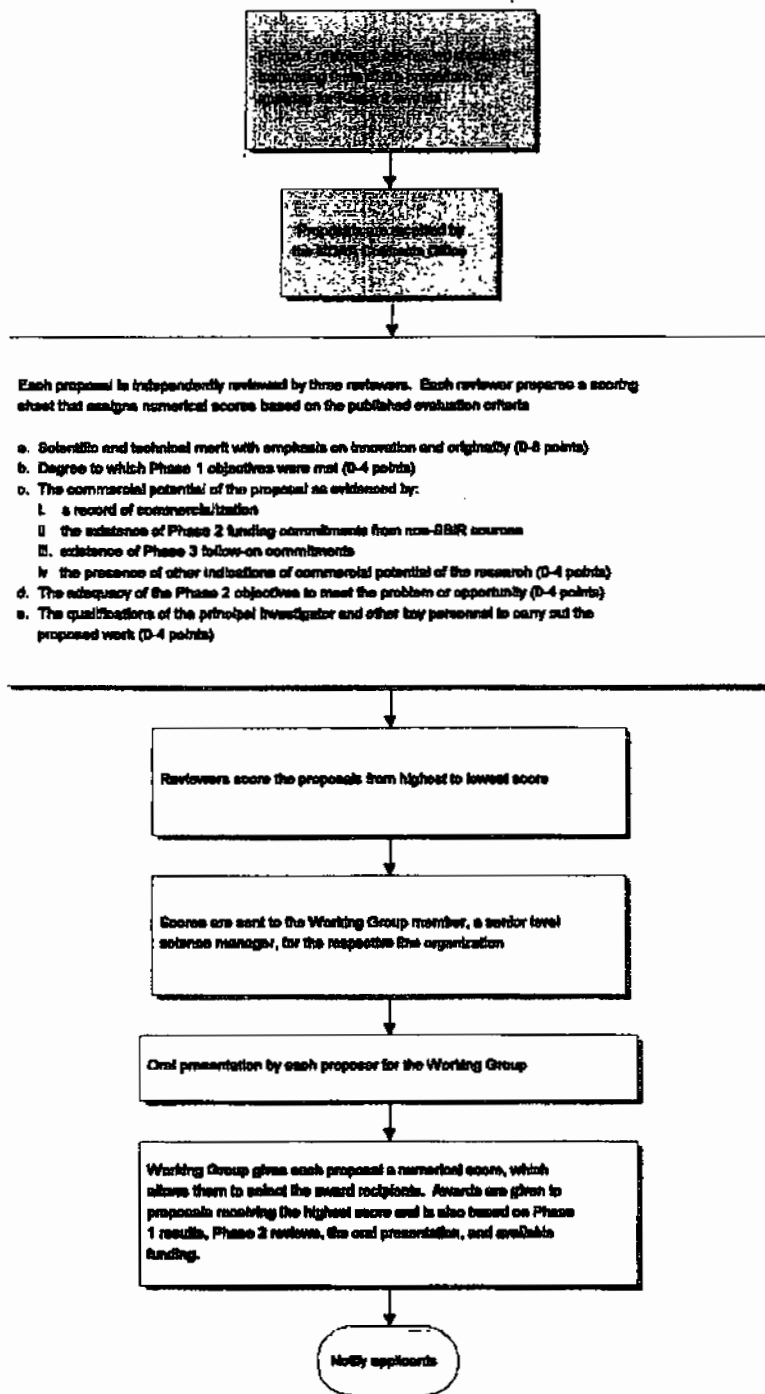


## NIST PHASE 1 PROCEDURES

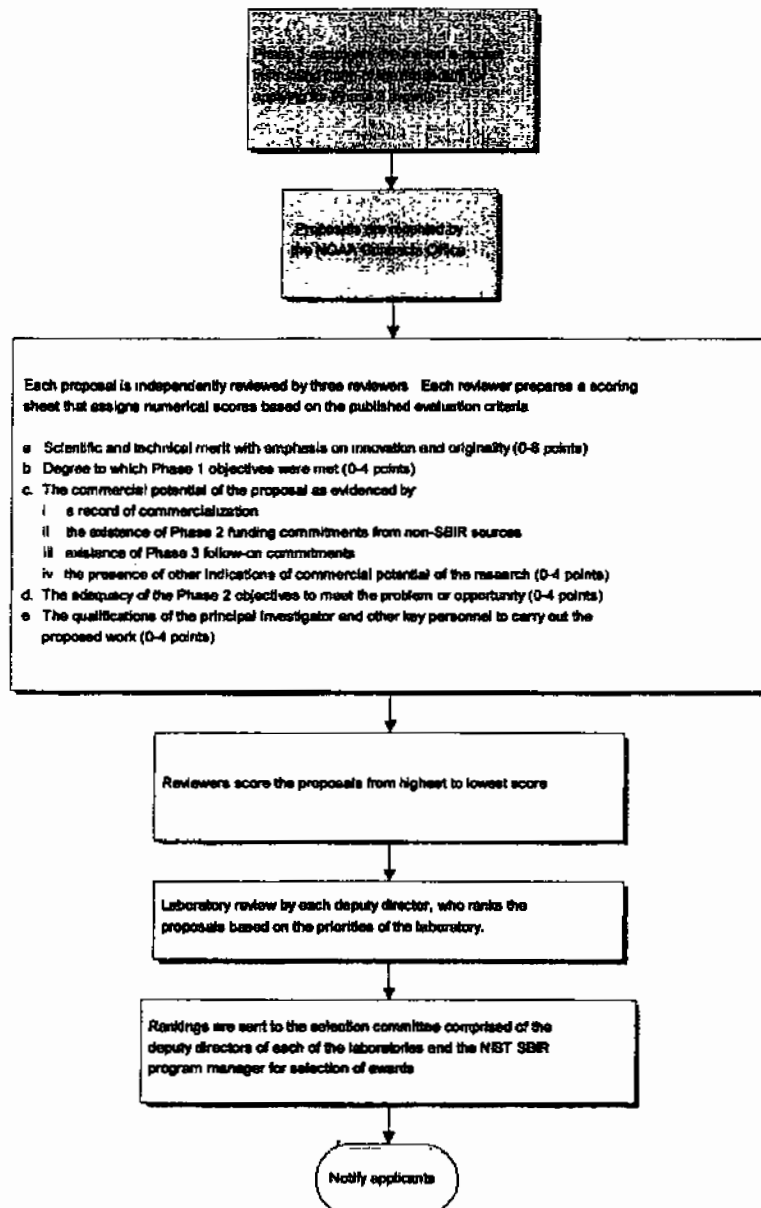


Appendix I  
Page 4 of 5

## NOAA PHASE 2 PROCEDURES



## NIST PHASE 2 PROCEDURES

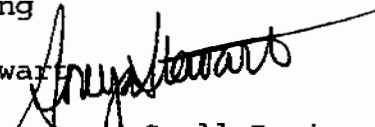




**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

MAY 1 2000

MEMORANDUM FOR: Mary L. Casey  
Acting Assistant Inspector General  
for Auditing

FROM: Sonya G. Stewart 

SUBJECT: OIG Draft Report - Small Business Innovation  
Research (SBIR) Program Award Procedures Need  
Improvement And Contracts are Not the  
Appropriate Funding Instrument CFDA No.  
11.476 - Audit Report No. DEN-11001-0-XXXX

Thank you for the opportunity to review and comment on the subject draft report. The report has provided useful information that will benefit the future management of the Department of Commerce Small Business Innovation Research Program (SBIR). NOAA generally concurs with the Office of Inspector General's (OIG) findings and agrees with four out of the five recommendations. We disagree with Recommendation 5 that states "Future SBIR awards are made in the form of financial assistance agreements, in accordance with the Federal Grant and Cooperative Agreements Act and SBA policy." Our rationale is provided in the attached.

If you have any questions concerning our response, or should you require further assistance, please contact Barbara Martin at 301-713-1150.

Attachment





**DRAFT AUDIT REPORT NO. DEN-11001-0-XXXX**  
**Small Business Innovation Research Program Award**  
**Procedures Need Improvement And Contracts are Not**  
**the Appropriate Funding Instrument CFDA No. 11.476**

**GENERAL COMMENTS**

**OIG Report:** Executive Summary: Page i, paragraph 3, line 7:  
" . . . Phase 1 is to determine the scientific and technical merit and feasibility of ideas submitted for consideration; Phase 2 is the research and development or prototype development phase of proposals identified in Phase 1 having commercial potential; . . ."

**NOAA Response:**

There are statements that represent the major emphasis of the DOC Small Business Innovation Research (SBIR) program that are not accurate. In Phase 1, ideas are not submitted for DOC consideration, as the OIG suggests. Rather, companies submit proposals that are solutions to mission-related research requirements identified by DOC scientists. All research requirements are generated by DOC and ideas generated externally by applicants are not funded. Also, in Phase 2, the commercial potential is not the major factor in the award process. Commercial potential receives only 4 out of 24 points toward funding in the Phase 2 review process. The ability to meet the stated DOC Research and Development (R&D) needs is the main factor in DOC Phase 2 funding.

**OIG Report:** Page ii, paragraph 6, line 4: ". . . Because the principal purposes of these awards is to transfer a thing of value to a recipient to carry out a public purpose of support or stimulation . . ."

**NOAA Response:**

The principal purpose of these awards is to acquire property or a service for the direct benefit of the Government. It is not, as mentioned on page ii, paragraph 6 of the OIG draft report, to transfer a thing of value to a recipient to carry out a public purpose of support or stimulation.

The OIG recommends that the NOAA SBIR program manager ensures that:

OIG Recommendation 1: Future SBIR program solicitations include language related to cost sharing, as required by SBA Policy Directive.

NOAA Response: NOAA agrees. On page 8 of the FY 1997 DOC SBIR solicitation there is a cost sharing statement, "Outside involvement in the project is encouraged where it strengthens the conduct of the research; such involvement is not a requirement of this solicitation." Although we believe this statement fulfills the SBA Policy Directive, we will make this statement more explicit in future solicitations.

OIG Recommendation 2: All SBIR proposals are evaluated by at least three reviewers, in accordance with DAO 203-26, Section 4.02h1(d).

NOAA Response: NOAA agrees. The FY 1997 grant proposals did receive three reviews by separate individuals. In addition to the three peer reviews for each grant proposal, there was a seven-person panel that reviewed the proposals and made the final grant selections. Based on DAO 203-26, Section 4.02h1(d), each grant proposal actually received 10 reviews. We will continue to remind SBIR Working Group members of the Departmental requirement to ensure that each application review panel consists of at least three persons.

OIG Recommendation 3: NOAA enhances the independence and objectivity of any future SBIR competitions by inviting reviewers from outside NOAA and the Department to participate in the evaluation of applications, as allowed under Section 4.02h1(d) of DAO 203-26.

NOAA Response: NOAA agrees. The FY 1997 grant proposals did receive reviews from outside NOAA and the Department. We fully agree that outside reviews enhance the independence and objectivity of the competition and will continue using them in the future.

OIG Recommendation 4: Only those proposals that participate in the established competitive process are considered for funding, as required by Section 4.02h1(b) of DAO 203-26.

**NOAA Response:** NOAA agrees. The two FY 1997 grant awards related to this recommendation were subjected to the same competitive process as the five other NOAA Phase 2 awards identified in the OIG audit. DOC employs three selection boards, and three separate selection meetings, in the Phase 2 selection process. One board aids in the selection of the National Institute of Standards and Technology (NIST) Phase 2 awards. A second is used for the selection of the NOAA Phase 2 awards (the five awards that were referred to in the OIG audit). The third selection board was used for the selection of the FY 1997 Phase 2 grant awards (the two grant awards that appeared to be noncompetitively selected). Both the NOAA and grant boards require three or more peer reviews (at least one being external to NOAA and DOC), and an oral presentation by the small business (for grants, this occurred on March 26, 1997). A final selection by the board is then based on the peer reviews and the results of the presentation. The Phase 2 grant award process conforms to the published DOC SBIR established competitive process. Further, the DOC SBIR program has always taken the utmost care to ensure that only those proposals that have been judged in the established competitive process are considered for funding.

As a final point, as the OIG cites, the two grant Phase 2 awards were mistakenly omitted from the FY 1997 DOC Abstracts of Awards. This was due to an editing error.

**OIG Recommendation 5:** Future SBIR awards are made in the form of financial assistance agreements, in accordance with the Federal Grant and Cooperative Agreement Act and SBA policy.

**NOAA Response:** NOAA disagrees. We agree with the OIG findings of the statutory basis for determining the funding instrument. The statute and agency policy specifically provide for flexibility in making this decision, and each requirement should be assessed individually to determine the appropriate funding mechanism. In reviewing 15 U.S.C. 638, it is clear that the "funding agreement" under the SBIR program may be a " . . . contract, grant, or cooperative agreement entered into between any Federal agency and any small business for the performance of experimental, developmental, or research work funded in whole or in part by the Federal Government."

The DOC SBIR program, through NOAA and NIST, is designed to specifically support work directly related to the services provided by its program staffs. The contracts awarded as a result of the SBIR solicitation process are directed toward specific government research needs. Therefore, the use of a contract as the funding mechanism was appropriate.

Efforts need to be enhanced to ensure that program solicitations and public notices are consistent in their statement of the determined funding instrument. As well, efforts need to be sustained to objectively review each program and ensure that the appropriate funding mechanism is selected.

NOAA is utilizing the SBIR Program to fulfill not only the public goal of fostering and supporting innovative research by small business, but also to fulfill its programmatic research needs. As such, the utilization of contracts as the funding mechanisms is appropriate in these circumstances. The DOC Office of General Counsel has reviewed both the SBIR solicitations and resultant contracts and has agreed with this funding mechanism as legal and proper.

January 31, 2001



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

**MEMORANDUM FOR:** Timothy J. Hauser  
Acting Under Secretary for International Trade

Marjory E. Searing  
Acting Assistant Secretary and Director General of the U.S. and  
Foreign Commercial Service

**FROM:**

Johnnie Frazier

**SUBJECT:**

Final Report: *US&FCS Mexico Requires Better Financial and  
Administrative Management as it Undertakes an Ambitious Export  
Promotion Program*  
(IPE-11844)

As a follow-up to our August 21, 2000, draft report, this is our final report on our inspection of US&FCS's operations in Mexico. The report includes comments from US&FCS's written response. A copy of this response is included in its entirety as an attachment to the report.

In general, we found that the US&FCS staff in Mexico was responsive to the export assistance needs of American businesses. Although the number of market research reports is relatively low, the post has an active trade event schedule.

Unfortunately, the post has had difficulties in handling its administrative responsibilities. The most notable problem is the mismanagement and poor accounting of its deposit fund account. In the report, we note several other financial and administrative issues that require management attention. We are pleased that your response to our draft report indicates a number of impressive remedial measures that you have taken or plan to take to address the problems that we identified.

Although your response in effect provides plans of action for most recommendations, there are three recommendations that require an action plan or further explanation. Please provide your action plan within 60 calendar days addressing our recommendations to (1) in conjunction with the Director of the National Institute of Standards and Technology, determine whether a standards representative continues to be needed in Mexico; (2) ensure that employees abide by the embassy's official motor vehicle policy; and (3) ensure that only authorized items are charged to the control room for high-level official visits and that individuals pay for personal incidentals directly.

We thank the personnel in ITA headquarters and the four US&FCS posts in Mexico for the assistance and courtesies extended to us during our review.

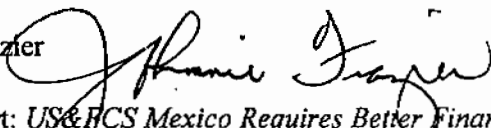
Attachment

January 31, 2001



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

**MEMORANDUM FOR:** Karen H. Brown  
Acting Under Secretary for Technology

**FROM:** Johnnie Frazier 

**SUBJECT:** Final Report: *US&FCS Mexico Requires Better Financial and Administrative Management as it Undertakes an Ambitious Export Promotion Program*  
(IPE-11844)

As a follow-up to our August 21, 2000, draft report, this is our final report on our inspection of US&FCS's operations in Mexico.

As part of this inspection, we reviewed the activities of the standards representative in Mexico and found standards-related work did not occupy 100 percent of his time and efforts. The officer was conducting non-NIST related activities, contrary to his position description and the agreement between NIST and US&FCS. Consequently, we recommended that US&FCS, in conjunction with NIST, determine whether a standards representative continues to be needed in Mexico. If so, we recommend that US&FCS and NIST review the existing agreement and revise it as necessary, to incorporate the current responsibilities of the standards officer. We also recommended that the agencies ensure that the officer's position description accurately reflects the officer's duties.

In US&FCS's response, the Acting Director General stated that the standards officer has been relieved of all supervisory and industry sector-related responsibilities, including BXA checks, and is working only according to the current agreement. The response, however, did not address whether the position in Mexico continues to be needed.

Therefore, we again ask that US&FCS and NIST determine the need for the standards officer in Mexico and discuss the two agencies' intentions in US&FCS's action plan. The action plan is due in 60 calendar days.

We thank the personnel in NIST, ITA headquarters, and the four US&FCS posts in Mexico for the assistance and courtesies extended to us during our review.

Attachment

## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
PURPOSE AND SCOPE .....	1
BACKGROUND .....	2
OBSERVATIONS AND CONCLUSIONS .....	5
I. Post's Trade Promotion Activities Need to Be Reexamined .....	5
A. Existence of trade center facility, not necessarily exporter needs, drives the post's activities .....	5
B. The post needs better defined goals and objectives .....	9
II. The Trade Center's Collocated Partners Provide Synergy, but the Relationship Is Lacking in Other Areas .....	11
A. Staff at post generally has good relations with collocated partners .....	12
B. Legal elements of agreements need to be reexamined .....	13
III. US&FCS Should Coordinate Border Opportunities .....	17
IV. Several Human Resource Issues Require Attention .....	22
A. NIST standards officer is conducting non-NIST related activities .....	22
B. Trade aides not appropriately used .....	24
C. US&FCS Mexico's staffing should be reexamined .....	29
V. Some Administrative Matters Need to Be Addressed .....	33
A. Certain administrative operations are being handled well .....	33
B. Continued active participation on ICASS council is needed .....	33
C. Internal controls in some areas need strengthening .....	34
D. Warehouse is disorganized and presents a potential fire, safety, and theft vulnerability .....	37
E. The number and use of motor vehicles are questionable .....	40

VI.	Financial Problems Continue to Detract from the Post's Operations .....	42
A.	Accounting for O&A funds appears adequate .....	42
B.	Management of trade promotion event deposit fund needs improvement .....	44
VII.	Border Conference Problems Illustrate Need for Better Handling of High Profile Trips and Travel Expenses .....	55
A.	ITA needs to better plan, monitor, and review senior-level travel expenses ....	56
B.	US&FCS Tijuana needs to adequately reference fund cites and authorization cables .....	58
C.	Senior officials and staff require better guidance for overseas travel to US&FCS posts .....	59
VIII.	Effectiveness of US&FCS Mexico's Constituent Posts Varies .....	64
A.	Monterrey staff is productive, but appears overburdened .....	64
B.	Guadalajara has low productivity and its consulate and business relations need to be improved .....	68
C.	Tijuana has had a number of successes, but level of activity may not warrant a full-time, on-site officer .....	70
	RECOMMENDATIONS .....	73
	ATTACHMENT: Agency Response .....	78



## EXECUTIVE SUMMARY

In looking at Mexico as a market, a nation, and a neighbor, it is clear that this country has an importance to the United States that transcends business cycles and long-term structural adjustments. Mexico is a convenient market and its firms are natural partners for companies from the United States. Beyond a shared 2,000 mile border, the two countries are bound, together with Canada, in the North American Free Trade Agreement, NAFTA, now in its fifth year. Eighty-five percent of U.S. goods now enter Mexico duty-free. Remaining tariffs on U.S. goods are between 5 and 20 percent *ad valorem*, with the highest on agricultural products and finished vehicles. Those tariffs will be phased out by January 2004, or earlier, depending on the good. The U.S. share of the Mexican import market reaches close to 85%, notwithstanding vigorous marketing efforts by European and Asian nations. According to the Census Bureau's 1999 data, the United States had a \$22.8 billion trade deficit with Mexico—the United States' second leading trading partner with \$196.57 billion in 1999 total trade. While Mexicans are a diverse and independent people, U.S. standards, business practices, and consumer styles are embraced in Mexico.

To assist U.S. exporters seeking to penetrate this market, US&FCS established offices in Mexico City, Tijuana, Guadalajara, and Monterrey. As of October 31, 1999, US&FCS Mexico had 11 American officers, 34 foreign service nationals, and 31 personal services contractors. The post also employs, as needed, a number of trade aides. The post's fiscal year 1999 operating budget was \$2,093,489.

The findings presented in this report relate to the post's operations and activities near the time of our visit in June to July 1999. In general, we found that the US&FCS staff in Mexico was responsive to the needs of U.S. exporters. Although the number of market research reports is relatively low, the post has an active trade event schedule. Unfortunately, we also found that the post was not efficiently handling several of its administrative responsibilities. The most notable problem is the mismanagement and poor accounting of its deposit fund account. Our report highlights these and other issues that require management attention:

**The existence of the trade center facility, not necessarily exporter needs, drives the post's activities.** US&FCS Mexico places too much emphasis on trade shows and events, in part because it resides in the U.S.-government owned trade center building and has historically maintained a heavy events schedule. The staff also feels pressure to produce a surplus of collections over expenses. The post has not developed an adequate strategic plan that could identify other goals and areas where US&FCS should focus its efforts in Mexico. In addition, according to several US&FCS partners in Mexico, the post's production of market research is suffering in terms of both quantity and quality (see page 5).

**The trade center's collocated partners provide synergy, however the relationship is lacking in other areas.** Although we found that positive synergies were generally created between US&FCS staff and the non-Commerce occupants of space, the agreements signed by US&FCS in Mexico to effect the lessor-lessee relationship with the partners were inadequate in several respects (see page 11).

**US&FCS's border initiatives should be better coordinated.** The growth of cities and economic activity along both sides of the U.S.-Mexico border has focused the attention of US&FCS, in both its domestic and international offices, on business opportunities for U.S. exporters in this burgeoning corridor. It is important that US&FCS effectively coordinates these initiatives between the domestic and international offices to avoid overlap and duplication, and the potential waste of resources or confusion of U.S. exporters with multiple US&FCS points of contact. US&FCS needs to determine whether and where additional resources are needed on both sides of the Mexican border and carefully coordinate its efforts in the area (see page 17).

**NIST's standards officer is conducting non-NIST related activities, contrary to the agreement and position description.** We found that the standards officer was assigned certain responsibilities of US&FCS commercial officers. He is now managing the post's Rural Initiative and covers most of the end-use checks requested by the Bureau of Export Administration. Such work at times detracts from the officer's standards mission. In addition, contrary to his position description, which states that he has no supervisory responsibilities, the incumbent is the first-line supervisor of six employees. If there is insufficient NIST-related work in Mexico to fully occupy a standards officer, the need for the position should be reviewed, or NIST and US&FCS should revise their agreement to reflect the officer's actual duties and workload (see page 22).

**Trade aides are not appropriately used.** We found that trade aides, not the trade specialists who typically provide the key products, were producing much of the US&FCS core products and services. Although trade specialists have relatively light responsibility for core US&FCS products, they are not producing much market research. We found that the post is inappropriately using a blanket purchase agreement to hire trade aides, which is not compliant with State Department guidance and the *Federal Acquisition Regulation*, and leaves the post open to potential legal liabilities. The post also lacks a formal assignment and evaluation system for trade aides. Lastly, some trade aides are contracted out to the state trade offices. These individuals are included on the main blanket purchase agreement and paid by US&FCS, but the cost of their services is reimbursed to US&FCS by the state trade offices, which have direct supervision over the trade aides (see page 24).

**US&FCS Mexico's staffing should be reexamined.** Mexico is one of the top trading partners with the United States and, correspondingly, has one of the largest US&FCS staffs. In fiscal year

2000, US&FCS plans to have 13 American officers and 60 locally employed staff throughout Mexico, with 85 percent of all employees located at the trade center in Mexico City. We believe both the number of officers and locally employed staff in Mexico City, particularly those conducting support and clerical activities, should be reexamined (see page 29).

**Some administrative matters require attention.** We found a number of problems related to administrative functions in Mexico. Although certain areas were adequately handled, such as the post's use of the government bankcard and imprest fund, we raised the following concerns:

- Procedures for documenting inventory, gifts and bequests, and security certifications are not adequate (see page 34).
- The warehouse is disorganized and presents a potential fire, safety, and theft vulnerabilities (see page 37).
- Staff at post use the official vehicles for personal use, contrary to the *Foreign Affairs Manual* and the *US&FCS Operations Manual* (see page 40).
- The need for five official vehicles in Mexico City is difficult to justify, especially now that the operations have been consolidated into one location and personal use of the vehicles should now cease (see page 40).

**Management of the deposit fund is problematic.** During our review of the deposit fund account, we found inadequate record keeping, unidentified embassy-posted transactions, unliquidated obligation balances dating back to fiscal year 1996, an absence of trade event final obligation reporting, and failures in appropriately reporting purchase card expenses. We also found that the post lacks an effective system to rationally identify and assign costs, both direct and overhead, associated with activities and operations conducted in the US&FCS facility in Mexico City (see page 44).

**Border conference problems show the need for better handling of high profile trips and travel expenses.** A number of concerns were raised by embassy staff regarding several US&FCS expense vouchers related to a Tijuana conference that was attended by senior departmental officials in June 1999. Our review of the vouchers and other documentation related to the conference, including authorization cables and travel vouchers, points to a number of travel vulnerabilities and irregularities (see page 55).

**Monterrey staff is productive, but appears overburdened.** During our review of the US&FCS constituent post in Monterrey, we discussed the post's efforts to promote U.S. exports

with several consular officials, partners, and clients. Each person interviewed held the Monterrey staff in high esteem and valued their work. The staff coordinates efforts extensively with other consular sections and multiplier organizations. Although the post is productive, there appears to be an overload of tasks assigned to the seven-person staff. Fortunately, the office continues to be successful in its trade promotion efforts, primarily due to its cooperative efforts and motivated staff (see page 64).

**US&FCS Guadalajara's low productivity and poor consulate and business relations need to be addressed.** The US&FCS post is located in the U.S. Consulate in Guadalajara and is responsible for eight states in western Mexico. Guadalajara is a less business-oriented city than Mexico City, Monterrey, and Tijuana. Although we found that administrative activities were handled well, the number of market research and success stories were down at the time of our visit, and improved communications with consulate officials and partners was needed (see page 68).

**Tijuana has had a number of successes, but the level of activity may not warrant a full-time, on-site officer.** The US&FCS operations in Tijuana are housed in the U.S. Consulate, located approximately 145 miles from Los Angeles and only 16 miles from San Diego. During fiscal years 1998 and 1999, the post was staffed by one US&FCS domestic office employee, reporting to San Diego, and one foreign service national trade specialist. Staffing changed in August 1999, to one principal commercial officer (a foreign service officer) and two foreign service nationals. The staff in Tijuana is responsible for a significant number of Mexico's success stories and has adequately managed most administrative operations. We question, however, the need for a foreign commercial officer stationed at the post versus living on the U.S. side of the border, considering the added cost of housing an American officer and family in country (see page 70).

On page 73, we offer a series of recommendations to the Under Secretary for International Trade and the Acting Assistant Secretary and Director General for the U.S. and Foreign Commercial Service to address our concerns.

---

In the agency's written response to our draft report, the Acting Director General of the U.S. and Foreign Commercial Service generally agreed with our observations and outlined steps US&FCS has taken to address the intent of our recommendations. The Acting Director General stated that "most recommendations have already been implemented or soon will be." We applaud US&FCS and the post for their aggressive plan of remedial actions to address our concerns.

## INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, and the requirements of the Omnibus Trade and Competitiveness Act of 1988, the Office of Inspector General conducted an inspection of the International Trade Administration's U.S. and Foreign Commercial Service (US&FCS) operations in Mexico during the period June 14 through July 1, 1999. This review included the operations of US&FCS's Trade Center in Mexico City.

Inspections are special reviews that the OIG undertakes to provide agency managers with information about operational issues. One of the main goals of an inspection is to eliminate waste in federal government programs by encouraging effective and efficient operations. By asking questions, identifying problems, and suggesting solutions, the OIG hopes to help managers move quickly to address problems identified during the inspection. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere.

This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. We discussed some of our preliminary observations with the Ambassador and Deputy Chief of Mission while in Mexico. Also, during the review, and at its conclusion, we discussed our findings with the Deputy Senior Commercial Officer at post. Finally, we briefed the Deputy Assistant Secretary for International Operations, the Regional Director for the Western Hemisphere, and the incoming SCO on our findings.

## PURPOSE AND SCOPE

The purpose of this inspection was to evaluate the effectiveness of the US&FCS post in Mexico, including the Trade Center, in assisting U.S. businesses to expand their trade and business opportunities there. We also looked at the policies, procedures, and practices being followed by the post to carry out its assigned functions and activities. This included determining whether established goals were being achieved, evaluating the economy and efficiency of operations, and assessing the post's compliance with applicable regulations and instructions. We also examined the coordination between the post and other organizations in achieving the overall goals of ITA and the Department.

In conducting the inspection, we (1) visited all four posts in Mexico: Mexico City, Monterrey, Guadalajara, and Tijuana; (2) reviewed the organizational structure and operating approaches used in administering activities at the post; (3) interviewed appropriate Commerce Department, State Department, and other U.S. government and private sector officials and business clients; and (4) examined pertinent files and records relating to the post's operations. The inspection also

included a review of headquarters and district office activities that support the post's operations. The findings presented in this report relate to the post's operations and activities near the time of our visit in June to July 1999.

## BACKGROUND

The International Trade Administration (ITA) administers a variety of programs and activities designed to increase U.S. exports. In addition to its headquarters operations, ITA maintains through the U.S. and Foreign Commercial Service (US&FCS), a network of U.S. Export Assistance Centers in 104 American cities and overseas posts in 92 countries.

US&FCS is structured to provide business firms with a base of export assistance and support stretching from individual U.S. cities to specific foreign markets. Personnel at the domestic offices primarily counsel U.S. firms on exporting, including how to get started, how and where to find foreign buyers and promising markets, and how to successfully compete for foreign business. They also act as a conduit for U.S. businesses' access to the US&FCS network of overseas offices. These overseas offices perform a number of activities that are directed at assisting individual exporters and improving the trade position of the United States. This includes identifying trade or investment opportunities, finding potential foreign representatives or agents for U.S. companies, providing business consultation to U.S. visitors at foreign posts, making business appointments with potential trading partners or host government officials, assisting in the implementation of export controls and other trade regulation activities, and preparing market research on a country's "best prospect" industries.

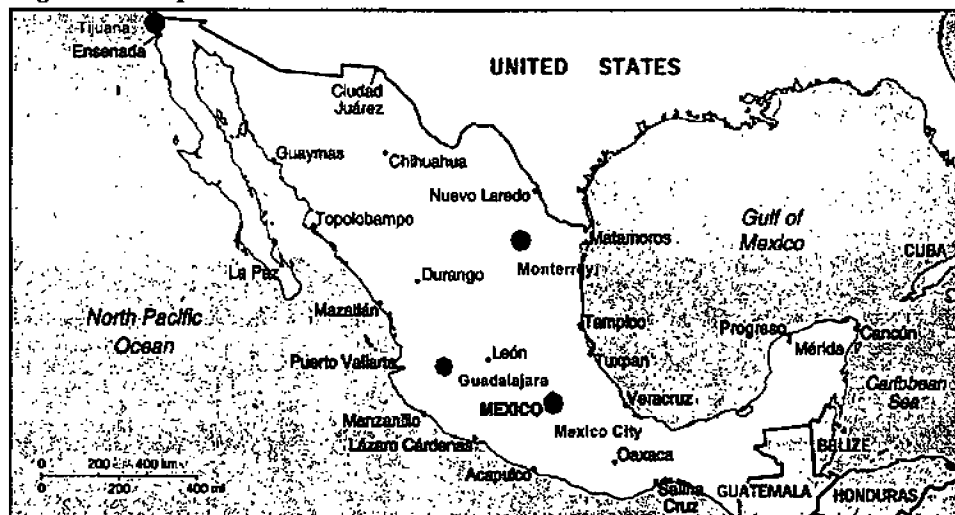
The overseas posts are generally staffed by three types of professionals: (1) American career officers within the foreign service, who rotate among posts on about three-year assignments and who are intended to provide the primary professional contact with U.S. businesses, the U.S. government, and senior foreign business and government officials as necessary; (2) career foreign service nationals (FSNs), who provide critical local continuity through the maintenance of foreign business and government contacts, as well as most of the specialized and general market research and business consulting; and (3) personal services contractors (PSCs), who provide the balance of support through specialized services beyond what current career staffing levels permit. The American officers are responsible for the overall management and leadership of posts, but they typically rely on FSNs to handle many administrative and some management functions and tasks. In Mexico, US&FCS also employs a number of temporary employees, referred to as trade aides, on an as needed basis through a blanket purchase agreement.

The Mexican economy is in the latter stages of an impressive recovery from a severe recession precipitated, in part, by the sharp devaluation of the peso in the last days of 1994. Simultaneous

with the implementation of a disciplined recovery plan, which has been hailed as a model for Asia's troubled economies, the government has put in place a series of economic and institutional reforms designed to keep the economy on a path of steady growth. U.S. exporters have managed to make the most of this notable Mexican recovery, with sales of U.S. goods and services to Mexico growing by over 20 percent for a third consecutive year in 1998, according to Census Bureau statistics.

While medium-term prospects for Mexican economic growth are among the best in the Western Hemisphere, there are negative factors which have the potential to cut growth and add turbulence in the near term. Of these, the high crime rate in Mexico City and certain other major cities has raised concerns for the safety of visitors, expatriates and, indeed, Mexican nationals. Other trends that do not pose an immediate challenge to Mexican growth, but warrant watching, are the continued weakness of the banking system, a moderate but mounting current account deficit, and the long-standing challenge of achieving a more equitable internal distribution of Mexican wealth.

Figure 1: Map of US&FCS Mexico Office Locations



In looking at Mexico as a market, a nation, and a neighbor, it is clear that this country has an importance to the United States that transcends business cycles and long-term structural adjustments. Mexico is a natural market and its firms are natural partners for companies from the United States. Beyond a shared two thousand mile border, the two countries are bound, together with Canada, in the North American Free Trade Agreement, NAFTA. Now in its fifth year, the treaty has proven to be a net boost to all three economies. Eighty-five percent of U.S. goods now enter Mexico duty-free. Remaining tariffs on U.S. goods are between 5 and 20 percent ad valorem, with the highest on agricultural products and finished vehicles. For NAFTA

percent ad valorem, with the highest on agricultural products and finished vehicles. For NAFTA exporters, tariffs will be phased out by January 2004, or earlier, depending on the good. The U.S. share of the Mexican import market reaches close to 85%, notwithstanding vigorous marketing efforts by European and Asian nations. According to the Census Bureau's 1999 data, the United States had a \$22.8 billion trade deficit with Mexico--the United States' second leading trading partner with \$196.57 billion in 1999 total trade. While Mexicans are a diverse and independent people, U.S. standards, business practices, and consumer styles are embraced in Mexico, especially by the large segment of the population that is under 25 years old.

To assist U.S. exporters penetrate this market, US&FCS established offices in Mexico City, Tijuana, Guadalajara, and Monterrey. As of October 31, 1999, US&FCS Mexico staff included 12 American officers, 35 foreign service nationals, and 28 personal services contractors (see Table 1). The post also employs, as needed, a number of trade aides. In Mexico City, all staff is located in the U.S. trade center facility. The facility also has sufficient space to house numerous trade missions, shows, events. US&FCS Mexico's fiscal year 1999 operating budget was \$2,093,489.

Table 1: Staffing levels at each US&FCS post in Mexico (June - July 1999)<sup>1</sup>

	Mexico City	Monterrey	Guadalajara	Tijuana	Total
American Officers	9	1	1	1	12
FSNs	27	3	3	2	35
PSCs	24	3	1	0	28
Total	60	7	5	3	75

<sup>1</sup>In addition to the above regular staffing, in FY 1999 US&FCS Mexico also had 178 part-time trade aides hired via a blanket purchase agreement.



## OBSERVATIONS AND CONCLUSIONS

### I. Post's Trade Promotion Activities Need to Be Reexamined

At the time of our visit, although US&FCS Mexico was busy with trade shows and other trade events and activities, we found no evidence that its activities were based on an analysis of what products and services would best serve U.S. exporters and meet US&FCS's goals and objectives. Instead, US&FCS Mexico placed an unjustified heavy emphasis on trade events—more specifically, making a profit on trade events.

#### A. Existence of trade center facility, not necessarily exporter needs, drives the post's activities

The Mutual Educational and Cultural Exchange Act of 1961 is the authority ITA uses to charge and collect fees from private sector parties to support the post's export promotion activities. In a June 29, 1990, memorandum to US&FCS, the Department's General Counsel stated that US&FCS is not allowed to "...set fees for the purpose of earning a surplus to cover other trade promotion activities." Although collections should bear a close relationship to the cost of the specific program or activity undertaken, some post staff stated that they intentionally budget for a profit.

For each event, the post develops and submits a budget to headquarters that estimates collections and expenses. As event planning and preparation near completion, a more accurate estimate of event costs are known and the budget is updated to reflect any changes in those estimates. In addition to individual event budgets, the post established an overhead account to track indirect expenses. Indirect expenses are not charged to each individual event. However, contrary to departmental policy, the post is budgeting beyond the amount needed to cover event and overhead expenses. In fact, the post has a history of collecting more than its actual expenses for trade events.

It is clear from the trade event budgets that the post was budgeting for a profit over and above its direct and overhead costs. Trade center officials told us that their philosophy has been to make a positive contribution to the US&FCS trust fund. The trust fund is a revolving fund that is self-supporting from the revenues generated by the trade events that it supports. At the time of our visit, the Office of Trade Events Management<sup>2</sup> was responsible for tracking and managing trade

---

<sup>2</sup>On January 7, 2000, the Office of Trade Events Management was eliminated and its functions were moved to the Office of Public/Private Initiatives.

events and the trust fund. Posts make requests to the trade events board<sup>3</sup> for funds from the trust fund for post-initiated events (PIEs). According to staff at post, the trade events board is more likely to grant requests for funds for trade events when a post has a history of making "contributions" to the trust fund, which are basically profits. However, trade center personnel pointed out that private sector trade show operators have been taking over the more profitable trade events conducted by the USTC. In order to ensure that the U.S. government is not competing with private U.S. companies, US&FCS allows private sector show organizers to bid on trade shows in which they show an interest. While we recognize the difficulties post staff face in their attempt to recover trade event costs, it is inappropriate for the post to budget with the intent to earn an overall profit on events. US&FCS Mexico trade events should be appropriately budgeted to recover costs, not earn revenue.

**Table 2: Estimated and Actual Income of the U.S. Trade Center in Mexico City**

Period	Collections	Direct Expenditures	Overhead Expenditures	Total Expenditures	Net Income
FY 1999 Projected at year beginning	\$1,335,280	\$737,336	\$454,957	\$1,192,293	\$142,987
FY 1999 Actual	1,463,128	933,871	515,137	1,449,008	14,120
FY 1980 - FY 1998 Actual	22,547,420	Not Available	Not Available	19,421,110	3,126,310

Source: 10/98 & 12/99 USTC Mexico City Cashflow Projections

As shown in Table 2, the habit of profit-seeking resulted in a substantial net income from 1980 to 1998. The net income of over \$3 million represents nearly a 14 percent profit margin for the center during this period. This large surplus is not merely due to conservative projections to keep the trade center from operating at a loss.

The post also realized a profit of over \$14,000 in FY 1999, albeit lower than the \$142,987 profit projected at the beginning of the fiscal year. Although it may appear that the planned profit was prudent in the event of unforeseen cancellations, poor attendance, or cost escalation, much of the

<sup>3</sup> The trade events board reviews and approves the mission statement and coordinates and oversees the scheduling of Commerce sponsored trade missions.

difference between the projected and actual profit was actually caused by an over \$60,000 increase in overhead, such as FSN and PSC wages and benefits.

Many in the office believe that their concentration on making a profit impairs the office's ability to address the more fundamental question: What efforts should the Department of Commerce undertake in Mexico to best serve U.S. exporters? If a trade show, regardless of its value to U.S. exporters, is perceived as a money loser, it does not get put on the event schedule. The cost recovery issue takes precedence; the center tends to focus on those shows that will be easiest to recruit. The fiscal needs of the trade center are important, but should be subordinate to the needs of U.S. exporters.

Privatization of trade shows leads to need to reexamine need for trade shows

As competition from private sector event organizers expands, the trade center is forced to offer more niche trade events. As provided for by departmental policy, US&FCS's more successful trade shows are being privatized. In effect, US&FCS Mexico has developed and then "graduated" a number of annual trade shows. Privatization of trade shows formerly conducted by US&FCS, combined with the growth of other independently run trade shows in Mexico, has limited the types of trade events available for US&FCS to sponsor. Consequently, the center conducts more highly specialized niche shows. For example, the center recently hosted a trade show for American exporters of used medical equipment. The main exception to this trend is the horizontal<sup>4</sup> Repcom Show, which matches American exporters from a variety of industries and sectors with Mexican agents, distributors, and representatives. The reduction of viable industries served by US&FCS's vertical shows may indicate that the post should reexamine US&FCS's need to heavily focus on hosting trade shows in Mexico City. The post should explore alternatives for using the 896 square meters of exhibition space that it currently maintains, such as converting it to office space.<sup>5</sup>

Subsequent to our visit, we learned that US&FCS was considering moving out of its current facilities in Mexico City. The problems we note in this report do not necessitate such a move. However if US&FCS decides to move to another location, it should not proceed with any major renovations recommended in this report.

---

<sup>4</sup> Horizontal trade shows involve many different industries and sectors. Vertical trade shows, on the contrary, are focused on one industry or sector, e.g. Expo Vacaciones is a vertical trade show for the tourism industry.

<sup>5</sup> The Mexico City trade center has two exhibition rooms, the George Washington (560 m<sup>2</sup>) and the John Adams (246 m<sup>2</sup>), and one meeting room, the Thomas Jefferson (90 m<sup>2</sup>).

**U.S. DEPARTMENT OF COMMERCE**  
**Office of Inspector General**

---



~~FOR OFFICIAL USE ONLY~~

**BUREAU OF INDUSTRY  
AND SECURITY**

***Annual Follow-Up Report on Previous  
Export Control Recommendations, as  
Mandated by the National Defense  
Authorization Act for Fiscal Year 2000***

*Final Inspection Report No. IPE-18546/March 2007*

***Office of Inspections and Program Evaluations***



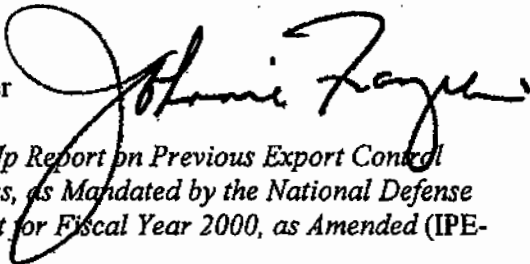


**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

March 30, 2007

~~FOR OFFICIAL USE ONLY~~  
(With Appendixes)

**MEMORANDUM FOR:** Mark Foulon  
Acting Under Secretary for Industry and Security

**FROM:** Johnnie E. Frazier 

**SUBJECT:** *Annual Follow-Up Report on Previous Export Control Recommendations, as Mandated by the National Defense Authorization Act for Fiscal Year 2000, as Amended (IPE-18546)*

This is our annual report on the status of open recommendations from our prior reviews conducted in accordance with the National Defense Authorization Act (NDAA) for Fiscal Year 2000, as amended. Please see page 4 for a listing of each report and the overall status of recommendations in those reports.

As a result of this year's follow-up work, we found that the Bureau of Industry and Security has taken action to address many of the open recommendations. However, several key recommendations from our reports on ECASS modernization efforts (February 2002), deemed export controls (March 2004), chemical and biological export licensing (March 2005), and China export controls (March 2006) remain open. In addition, one recommendation from the March 2002 interagency report on federal automated export licensing systems is still open. All recommendations from our March 2000 and 2001 reports are now closed. Appendix A provides more details about our findings and recommendations and the actions BIS has taken to address them.

We would like to make special note of the fact that the Secretary of Commerce established a Deemed Export Advisory Committee in June 2006 to review BIS' deemed export control policy, including our recommendations. We look forward to the committee's report later this year and hope its findings and recommendations will enable BIS to increase compliance rates, assist enforcement efforts, and ensure that the regulations have the intended effect of protecting national security interests without unnecessarily overburdening exporters and the scientific community. In addition, with regard to export controls for China, we want to point out that BIS is currently working on a final rule that will clarify U.S. policy on the export of items controlled for national security reasons to China and will implement new controls on exports of certain otherwise uncontrolled items when the exporter knows they are destined for a military end use in China.



Furthermore, given the current interest in the Committee on Foreign Investment in the United States (CFIUS) both within and outside of the U.S. government, we followed up on our March 2000 report findings and recommendations related to selected aspects of CFIUS' monitoring of foreign investment for national security reasons. While questions still remain about the effectiveness of the overall CFIUS process, we noted that considerable improvements have been made with regard to the CFIUS activities within Commerce. We believe these improvements provide for greater coordination and transparency in Commerce's decision-making process. Appendix B provides more detail about our follow-up work related to CFIUS.

It should also be noted that based on our current follow-up work, we reopened our recommendation related to BIS working with the U.S. Postal Service to increase interagency cooperation and coordination in identifying potential violations of dual-use export control laws. Specifically, after two joint initiatives in 2005, the coordination between the agencies appeared to stop. Given that individuals could circumvent dual-use export controls by mailing controlled commodities to countries or entities of concern without seeking an export license, we believe that senior Export Enforcement officials need to intervene in this matter (see page A-25).

We request that BIS officials provide an updated response and action plan within 60 calendar days for those recommendations that we still consider to be open. If you would like to discuss this report, please call me at (202) 482-4661, or Jill Gross, Assistant Inspector General for Inspections and Program Evaluations, at (202) 482-2754.

## **BACKGROUND**

The United States controls the export of dual-use items for national security, foreign policy, and nonproliferation reasons under the authority of several different laws. Dual-use items are commodities, software, and technologies that have predominantly civilian uses, but also can have military, proliferation, and terrorism-related applications. The primary legislative authority for controlling the export of dual-use commodities is the Export Administration Act of 1979, as amended,<sup>1</sup> which is implemented through the Export Administration Regulations (EAR).

The House and Senate Armed Services Committees, through the NDAA for FY 2000, as amended, directed the Inspectors General of the Departments of Commerce, Defense, Energy, and State, in consultation with the Director of Central Intelligence and the Director of the Federal Bureau of Investigation, to conduct an annual assessment of the adequacy of current export controls and counterintelligence measures to prevent the acquisition of sensitive U.S. technology and technical information by countries and entities of concern.<sup>2</sup> The Offices of Inspector General (OIGs) are required to report to the Congress no later than

<sup>1</sup> 50 U.S.C. app. sec. 2402(2). Although the act expired on August 20, 2001, Congress agreed to the President's request to extend existing export regulations under Executive Order 13222, dated August 17, 2001, as extended by the Notice of August 3, 2006, 71 FR 44551 (August 7, 2006), thereby invoking emergency authority under the International Emergency Economic Powers Act.

<sup>2</sup> Public Law 106-65, October 5, 1999.

March 30 of each year from 2000 to 2007. In addition, the legislation requires the OIGs to include in their annual report the status or disposition of recommendations made in earlier reports submitted in accordance with the act. This memorandum, in conjunction with the appendixes, is designed to provide that status report.

### **OBJECTIVES, SCOPE, AND METHODOLOGY**

The primary objective of this review was to follow up on actions taken by BIS, and other responsible Commerce bureaus, to implement the open recommendations contained in our prior reports completed in accordance with NDAA 2000, as amended. We also followed up on select recommendations made in our March 2000 report on CFIUS and recommendations related to the Office of Export Enforcement's coordination with the U.S. Postal Service, as contained in our March 2003 report on export enforcement.

To meet our objectives, we spoke with various BIS officials, including senior managers and licensing and enforcement officers, as well as officials in the International Trade Administration (ITA), the National Institute of Standards and Technology (NIST), the National Oceanic and Atmospheric Administration (NOAA), and the Department's Office of Security (OSY). We also spoke with officials from the Department of the Treasury and the U.S. Postal Service. In addition, we reviewed supporting documentation to determine whether the actions reportedly taken by these agencies were sufficient to address our recommendations.

### **OBSERVATIONS AND CONCLUSIONS**

Table 1 on the following page summarizes the number of remaining open recommendations from each OIG inspection report. Appendix A to this report includes a detailed description of the individual open recommendations and the OIG status report on them. Appendix B to this report includes a detailed status report on prior OIG work and recommendations related to CFIUS matters.

**Table 1: Status of Open Recommendations in OIG 2000-2006 Reports on Export Controls**

Report Title	Agency	Recommendations			
		Total #	# Closed Prior to this Reporting Period	# Closed During this Reporting Period	# Open
<i>U.S. Dual-Use Export Controls for China Need to Be Strengthened</i> (IPE-17500, March 2006)	BIS	9	0	1	8
<i>The Export Licensing Process For Chemical And Biological Commodities Is Generally Working Well, But Some Issues Need Resolution</i> (IPE-16946, March 2005)	BIS	11	6	3	2
<i>Deemed Export Controls May Not Stop the Transfer of Sensitive Technology to Foreign Nationals in the U.S.</i> (IPE-16176, March 2004)	BIS	7	4	1	2
	NIST	7	6	0	1
	NOAA	5	0	5	0
	OSY	1	0	0	1
<i>Improvements Are Needed to Better Enforce Dual-Use Export Control Laws</i> (IPE-15155, March 2003)	BIS	55	53	1	2*
	ITA	4	4	0	0
<i>BXA Needs to Strengthen Its ECASS Modernization Efforts to Ensure Long-Term Success of the Project</i> (IPE-14270, February 2002)	BIS	13	9	1	3
<i>Interagency Review of Federal Automated Export Licensing Systems</i> (D-2002-074, March 2002)	BIS	4	3	0	1
<i>Management of Commerce Control List and Related Processes Should be Improved</i> (IPE-13744, March 2001)	BIS	14	12	2	0
<i>Improvements Are Needed in Programs Designed to Protect Against the Transfer of Sensitive Technologies to Countries of Concern</i> (IPE-12454-1, March 2000)	BIS	22	22	0	0
	ITA	1	1	0	0
	NIST	6	6	0	0
	NOAA	5	5	0	0
<b>TOTALS</b>		164	131	14	20*
*Note: We reopened one of the recommendations from our export enforcement report upon receiving updated information on the activity in question during our current follow-up work.					



## Appendix A

### Summary and Status of Open Recommendations in OIG Reports on Export Controls Issued Pursuant to the National Defense Authorization Act for Fiscal Year 2000, as Amended

(Fiscal Years 2000-2006)

#### Export Control Report Topics Included in Appendix A

March 2006 Report:	Export Controls for China (Blue)
March 2005 Report:	Chemical and Biological Export Controls (Yellow)
March 2004 Report:	Deemed Export Controls (Green)
March 2003 Report:	Export Enforcement (Pink)
February 2002 Report:	ECASS Modernization Efforts (Salmon)
March 2002 Report:	Interagency Review of Federal Export Licensing Systems (Peal)
March 2001 Report:	Commerce Control List (Purple)
March 2000 Report:	Deemed Exports, Visa Application Review Process, and Committee on Foreign Investment in the United States (Buff)

**March 2006 Report:  
Export Controls for China**

**U.S. Dual-Use Export Controls for China Need to Be Strengthened IPE-17500, March 2006**

**A. Summary of Findings and Recommendations**

During the 2006 reporting period, we evaluated the effectiveness of the U.S. government's export control policies and practices with respect to preventing the unauthorized transfer of sensitive U.S. technologies and technical information to China. In particular, we evaluated the consistency of BIS' export control policies, practices, and procedures regarding China with relevant laws and regulations; the effectiveness of coordination among federal agencies during the dispute resolution process for export license applications involving China; the potential for diversion of sensitive commodities from Hong Kong to China; the effectiveness of BIS' end-use check program in China and Hong Kong; and what activities Commerce bureaus are engaged in pursuant to the 1979 U.S. and China Science and Technology Agreement and, to the extent practicable, whether they are adhering to export control regulations. Our observations and conclusions during the 2006 review included the following:

- ❖ **Export control regulations and procedures related to China should be strengthened.** The current dual-use export control regulations do not prevent the Chinese military from receiving U.S. commodities that can be used in the development of conventional weapons.
  - **BIS regulations raise some conventional weapons concerns.** According to BIS, there is currently no basis in the Export Administration Regulations (EAR) to deny an export license application solely on the basis of military end use if the exported item or technology is not controlled for national security reasons on the Commerce Control List (CCL). We recommended that BIS review the issue to determine whether it warrants regulatory revision, such as the addition of a military "catch-all" provision to the EAR for items that could contribute to the development of conventional weapons but are not specifically controlled for national security reasons, and implement such a change in the regulations, as appropriate.
  - **BIS' public statements regarding licenses to China are inconsistent with the EAR.** Specifically, while the EAR states, "[i]tems may be approved even though they may contribute to Chinese military development or the end-user or end-use is military," BIS officials have repeatedly stated that BIS does not approve export licenses to military end users in China. This inconsistency results in a lack of transparency to exporters and may cause difficulties in implementation and application of export controls within the interagency export licensing community. We recommended that BIS develop one consistent policy regarding exports to

military end users or for military end uses in China and amend the regulations as necessary to reflect that policy.

- ❖ **BIS' end-use check programs in China and Hong Kong need to be improved.** End-use checks play an important role in helping to ensure that exported technologies are protected from diversion to unauthorized end users or end use. Given the importance of both China and Hong Kong in U.S. export control matters, BIS assigns one of its export enforcement agents to each of these posts to conduct end-use checks. While the reluctance of the Chinese government to allow end-use checks has historically precluded the U.S. government from performing many checks, agreement to the *End Use Visit Understanding* by both countries in April 2004 afforded BIS the ability to conduct end-use checks on a wider spectrum of licensed goods and technologies.
- **End-use checks in China still face challenges.** Due to the classified nature of the material discussed in this section, we offer our specific findings related to this topic in the classified Appendix C to the China report.
- **BIS needs to more aggressively monitor potential diversions of export-controlled items from Hong Kong to China.** Despite BIS' end-use check requirements for Hong Kong and the placement of an export control officer (ECO) in Hong Kong in March 2004, there were a low number of Post Shipment Verifications (PSVs) conducted in FY 2005. In addition, we determined that BIS was not adequately targeting PSVs for shipments that can be exported to Hong Kong without a license but that would require a license to China. We recommended that BIS increase the number of end-use checks that should be conducted in Hong Kong based on past performance. We also recommended that BIS improve the targeting of end-use checks in Hong Kong through (a) adequate upfront research on no-license-required shipments prior to post shipment verification requests, (b) enhanced and continued intelligence sharing between its Office of Export Enforcement (OEE) and its Office of Enforcement Analysis (OEA); and (c) the utilization of intelligence information to help identify appropriate end-use checks. In addition, we recommended that BIS work with the U.S. Census Bureau to modify the Automated Export System to expand the Export Control Classification Number field from the current five digits to eight digits.
- **BIS needs to improve staffing continuity for its operations in Hong Kong and China.** We noted that BIS did not have a formal staffing plan in place to ensure continuity in its assignments of ECOs in Hong Kong and China. We recommended that BIS develop a staffing plan to provide continuity in the stationing of qualified ECOs in Hong Kong and China to avoid interruptions in operations and initiate that plan at least 6 to 12 months before the end of the term of the departing ECO.

- ❖ **BIS' monitoring of license conditions could be enhanced.** The EAR states that an export license may be limited by conditions on the use of the export. The ability to place conditions on a license is an important part of the license approval process as well as an additional means to monitor certain shipments. Of the 55 standard license conditions, 6 require the licensee to submit export documentation to BIS regarding the shipment of a controlled commodity. A seventh condition, referred to as "Write Your Own" (WYO), allows licensing officers to formulate unique requirements, which may also include reporting requirements. Frequently, the conditions are the result of lengthy negotiations among the licensing referral agencies.
- **BIS should ensure that there is a technical review of technical documentation submitted by exporters or end users pursuant to license conditions.** While BIS has a process to track whether or not exporters actually submit documentation pursuant to six of the seven license reporting conditions, provided the licenses are properly marked, it did not require licensing officers to actually review the documentation. As a result, we identified 11 China cases that required exporters to submit technical documentation pursuant to conditions uniquely formulated by the interagency licensing agencies that did not receive a technical review. Without a substantive, technical review of the documentation, BIS cannot determine whether the exporter (and/or end user) is complying with the intent of the license conditions. We recommended that BIS put procedures in place to provide for a technical review of technical documentation submitted by exporters and end users to ensure their compliance with license conditions.
- **China post-shipment verification license conditions were not properly marked for follow-up.** We identified five China licenses that required a PSV but were not properly marked by the licensing officer with "Condition 14." When a licensing officer marks "Condition 14" on a license application, the license is automatically entered into Export Enforcement's Conditions Follow-up Subsystem and targeted for subsequent monitoring. However, in these cases the text of the PSV condition was recorded in the WYO condition despite a countersigning process meant to ensure that license applications are processed appropriately, including making sure that license conditions are accurately reflected on the license applications. As such, these licenses were not entered into Export Enforcement's tracking system, which is monitored by OEA. We recommended that BIS review the process of marking and countersigning license applications with Condition 14 to identify and correct any weaknesses to ensure that these license applications are properly entered into Export Enforcement's Conditions Follow-up Subsystem and monitored by OEA. We also recommended that the Office of Exporter Services (OExS) promptly forward to OEA any copies of shipper's export declarations that are submitted by an exporter.

- ❖ **NIST and NOAA conduct various activities pursuant to the 1979 U.S.-China Science and Technology Agreement.** Pursuant to our mandate under the NDAA for FY 2003, we sought to determine what activities Commerce bureaus were engaged in pursuant to the 1979 U.S.-China S&T Agreement and, to the extent practicable, whether they are adhering to export control regulations. Within Commerce, there are two bureaus—NIST and NOAA—that maintained active protocols under the agreement during FYs 2004 and 2005. We found that NIST appeared to be complying with deemed export control regulations with respect to activities undertaken pursuant to the 1979 S&T Agreement. Specifically, the EAR-controlled items we reviewed at NIST appeared to be protected from Chinese foreign national visitors. We found that NOAA still is in the process of developing its export control compliance program; however, NOAA has reportedly placed access controls on all EAR-controlled technology where foreign nationals are present, including Chinese nationals.

**B. Status of OIG Recommendations**

**Recommendations for BIS**

1. **Determine whether a military “catch-all” provision should be incorporated in the EAR for items that could contribute to the development of conventional weapons but are not specifically controlled for national security reasons, and implement, as appropriate.**

**Status: Open.** BIS issued a proposed rule in July 2006 to update its policies on dual-use exports to China. The proposal intends to clarify U.S. policy on exports of items controlled for national security reasons to China and will also implement new controls on exports of certain otherwise uncontrolled items when the exporter knows they are destined for a military end use in China. The comment period ended in December 2006. According to the Assistant Secretary for Export Administration, BIS has reviewed all of the comments and is currently working with the export licensing agencies to modify the rule, as appropriate. BIS is striving for the rule to be finalized by May 2007. Until the rule is finalized and published in the *Federal Register*, this recommendation will remain open.

2. **Develop one consistent policy regarding exports to military end users or for military end uses in China and amend the regulations as necessary to reflect that policy.**

**Status: Open.** The rule described in recommendation one above will also reaffirm that the U.S. government’s existing policy is to generally deny exports that will contribute to the advancement of Chinese military capabilities. Until the rule is finalized and published in the *Federal Register*, this recommendation will remain open.

3. Increase the number of end-use checks that should be conducted in Hong Kong based on past performance.

**Status: Open.** According to BIS' May 2006 action plan, its ongoing reorganization of Export Enforcement's OEA, including the selection of a senior executive service-level director and the creation of a specific division responsible for license review and end-use check functions, will result in an increase in the quantity and quality of BIS resources supporting the end-use check program. In addition, starting in FY 2007, the number of end-use checks to be conducted increased from 50 to 58-60 for posts that have ECOs. However, only 38 end-use checks were closed out in FY 2006 for Hong Kong. BIS attributed this low number of end-use checks to the gap in ECO coverage from March 2006, when the former ECO left post, to August 2006, when the current ECO arrived at post. While we still believe that the ECO in Hong Kong could conduct more than the newly prescribed 60 end-use checks due to the size of the territory covered and lack of host government restrictions on conducting such checks, we understand that BIS is going to make the Hong Kong ECO position a regional position. As such, in addition to conducting 60 end-use checks in Hong Kong in a given year, the ECO informed us that he will be required to conduct end-use checks in other countries in the region (e.g., Singapore, Malaysia, Thailand, and Indonesia). However, until the ECO meets the current end-use check requirement for Hong Kong, this recommendation will remain open.

4. Improve the targeting of end-use checks in Hong Kong through (a) adequate upfront research on no-license-required shipments prior to PSV requests, (b) enhanced and continued intelligence sharing between OEE and OEA; and (c) the utilization of intelligence information to help identify appropriate end-use checks.

**Status: Open.** According to its May 2006 action plan, BIS has taken steps to improve the targeting of end-use checks in Hong Kong. Specifically, the action plan reports that BIS' current reorganization of OEA is designed in part to improve coordination between it and OEE on sharing intelligence information, which will help to identify appropriate end-use checks in Hong Kong. While the reorganization plan appears appropriate, we noted that the newly reorganized office has some critical vacancies including the new senior executive service-level director position and the GS-15 director position for the newly created division responsible for license review and end-use check functions.

In addition, while it is our understanding that OEA and OEE staff routinely attend weekly intelligence meetings, OEA and OEE managers were unable to assess the impact this has had on better targeting of PSVs in Hong Kong. Furthermore, due to resource constraints,

Exemption (b)(2)

Nonetheless, we did note that of the 16 PSVs conducted in Hong Kong in FY 2007, to date, 15 reportedly involved no-license required shipments. Six of the 15 no-license required

PSVs involved EAR99 items. With possibly two exceptions, it is unclear why these particular transactions were selected given that they would generally not require a license to most countries, including China. Until BIS resolves the concerns raised above, this recommendation will remain open.

5. **Work with the U.S. Census Bureau to modify the Automated Export System to expand the Export Control Classification Number field from the current five-digits to eight-digits.**

**Status: Open.** BIS is striving to publish an advance notice of proposed rulemaking soliciting comments from industry sectors and individual companies on the projected impact on them of expanding the Automated Export System fields. BIS also stated that it will consult with the Census Bureau regarding the impact such a change would have on the Automated Export System prior to publishing the notice. BIS hopes to issue the advance notice in the *Federal Register* in July 2007. Accordingly, this recommendation will remain open.

6. **Develop a staffing plan to provide continuity in the stationing of qualified ECOs in Hong Kong and China to avoid interruptions in operations and initiate that plan at least 6 to 12 months before the end of the term of the departing ECO.**

**Status: Closed.** BIS developed and implemented a formal staffing plan that provides specific deadlines for recruiting, selecting, training, and stationing qualified ECOs at designated post. The plan also provides a period of overlap between assignments to ensure continuity in operations during the transition between the departure of one ECO and the arrival of that ECO's replacement at post. In addition, if BIS management foresees that there will be a gap between assignments, the plan provides for travel by other OEE personnel to post to ensure coverage during the gap. BIS' actions meet the intent of our recommendation.

7. **Put procedures in place to provide for a technical review of technical documentation submitted by exporters and end users to ensure their compliance with license conditions.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation closed. Specifically, BIS' chief licensing officer sent updated guidance on May 9, 2006, to all licensing officers on proper procedures for license conditions that require technical documentation from exporters. One of the requirements outlined in the guidance requires licensing officers to review technical documentation submitted pursuant to a license condition if the reports were requested because of concerns with the transaction. However,

Exemption (b)(2)



BIS has the authority to administer and enforce the EAR and, as such, is ultimately responsible for monitoring and enforcing all conditions placed on a dual-use license. Without knowing whether an exporter or end user is fully compliant with license conditions, BIS cannot make informed decisions on future license applications involving the same parties or take appropriate enforcement action on the current license. As such, this recommendation will remain open until BIS revises its procedures with respect to the review of technical documentation by licensing officers to require that *all* technical documentation requested by any licensing agency, and included in an approved license, be examined by the appropriate licensing officer upon submission by the exporter to ensure compliance with the reporting conditions.

8. **Review the process of marking and countersigning license applications with Condition 14 to identify and correct any weaknesses to ensure that these license applications are properly entered into Export Enforcement's Follow-up Subsystem and monitored by the Office of Enforcement Analysis.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation closed. Specifically, BIS reported that it reviewed the process for marking and countersigning license applications and, on May 5, 2006, issued an e-mail instructing licensing officers to use a "Countersigning Check Sheet" to ensure consistency and uniformity with guidelines established. Based on our recent review of export controls for India, all the licenses in our sample were properly marked for condition 14. However, we did identify several licenses from our sample that contained various reporting requirements but were not properly marked for "follow-up" by the licensing officers. These errors occurred despite the fact that each export license application was reviewed and signed off by a countersigner. We do not know whether the May 2006 guidance has improved officer compliance with this requirement since the licenses not marked for follow-up were processed before this memorandum was issued. Under the circumstances, we suggest that BIS review a sample of license applications to see whether licensing officers and countersigners are consistently marking the appropriate licenses for follow-up. As such, this recommendation will remain open until BIS determines whether licensing officers and countersigners are fully implementing this guidance.

9. **Ensure that OExS promptly forwards to OEA any copy of a shipper's export declaration that is submitted by an exporter.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation closed. On March 16, 2006, the Director of OExS instructed the Operations Support Division to forward shipper's export declaration documents to OEA within 48 hours of receipt. The Operations Support Division was also instructed to place a copy of the documents and the transmittal memo in the Multipurpose Application Records and Retrieval System, which is the permanent record retention system for documents related to export applications and classifications. However, during our recent

review of export controls for India, we found that OExS staff failed to forward shipping documentation they received for at least one license to OEA so that a PSV could be initiated after the May 2006 shipment. One of the responsible OExS employees for this license said that she did not forward the shipping documentation to OEA because she believed monitoring the license conditions in this case was the responsibility of OExS. As such, this recommendation will remain open until BIS conducts a review to ensure that OExS staff (1) understands which license conditions they are responsible for monitoring and (2) are properly forwarding documentation to OEA.

**March 2005 Report:  
Chemical and Biological Export Controls**

*The Export Licensing Process for Chemical and Biological Commodities Is Generally Working Well, But Some Issues Need Resolution, IPE-16946, March 2005*

**A. Summary of Findings and Recommendations**

During the 2005 reporting period, we evaluated the U.S. export licensing process for chemical and biological commodities to determine whether current practices and procedures helped deter the proliferation of chemical and biological weapons. In particular, we evaluated BIS' licensing process for chemical and biological commodities to determine whether the process was timely, complied with statutory and regulatory requirements, and took the cumulative effect of prior technology transfers into consideration. We also assessed whether data and information were properly shared between the various agencies involved in the export license review process and whether the dispute resolution process between the agencies worked. Finally, we looked at BIS interactions with the Australia Group (AG) and the procedures for placing newly controlled items on the CCL. Our observations and conclusions from the 2005 review included the following:

- ❖ **The licensing process for chemical and biological commodities generally resulted in timely decisions in fiscal year 2003, but some improvements are needed.** Based on a review of 90 of the 1,803 chemical and biological license applications submitted in 2003, we found that the licensing process generally resulted in timely decisions. Nevertheless, we identified several areas that needed improvement.
  - **There is no specific time frame established for processing "non-escalated" license applications.** Executive Order 12981 establishes specific time requirements for review and processing time for license applications that are escalated, but there is no time requirement for completing license applications that are not escalated. We recommended that BIS establish specific time frames for reviewing and signing off on license applications after approval by the referral agencies.
  - **License processing guidance should be consolidated and readily accessible to licensing officers.** Licensing officers need to follow appropriate policies and procedures in order to ensure proper analysis of export license applications. We found that BIS guidance was not compiled in a readily accessible manner and some of the guidance routinely used by BIS was not very clear. We recommended that BIS develop and maintain updated, consolidated written guidance, or an internal operations handbook, to formalize current license application review practices and that the guidance or handbook be made readily accessible to all employees involved in the licensing process.

- ❖ **Cumulative effect reviews are not being performed for chemical and biological export licenses.** Cumulative effect reviews examine the impact of proposed exports when added to other past exports to countries and entities of concern. Approval of a single export license may not result in a significant increase in strategic capability of a country or entity of concern, but approval of multiple licenses combined with diversion of strategic items from other countries, the provision of items not requiring a license, and/or legitimate shipments from foreign suppliers could substantially enhance a country's ability to build a weapon of mass destruction.
  - **BIS lacks the systems and resources to perform cumulative effect analyses.** We found that BIS lacks the systems and resources to analyze the cumulative effect of prior technology transfers made to the end users listed on chemical and biological license applications, and BIS does not receive such assessments from other agencies during the interagency review process. We recommended that BIS assess the feasibility of providing licensing officers with the information housed in the Automated Targeting System and Automated Export System for use in their review of license applications.
  - **Licensing referral agencies are not performing cumulative effect analyses.** BIS and the Central Intelligence Agency emphasized that cumulative effect analysis is not currently feasible because all the available data sources cannot be quickly consolidated or are not available when processing chemical and biological export licensing applications. We recommended that BIS work with the intelligence community to develop a method to analyze and track the cumulative effect of dual-use exports to countries and entities of concern.
- ❖ **Recent improvements in the timeliness of changes to the Commerce Control List need to be maintained.** The Australia Group, a forum of industrialized countries that cooperate in trying to prevent the proliferation of chemical and biological weapons, generally recommends new chemical and biological items for control on an annual basis. BIS and the other licensing agencies cannot disclose such items to U.S. companies or prevent newly regulated items from being exported until these items are published on the CCL. During the last seven years, BIS had taken an average of ten months to get newly regulated chemical and biological items published on the CCL. However, BIS made a significant improvement by publishing the changes from the AG's June 2004 meeting in just six months. We recommended that BIS take appropriate actions to sustain those improvements in the timeliness of U.S. publication of AG guidelines and rule changes that impact the CCL.
- ❖ **Denial notification to the Australia Group needs to be more transparent.** One of the obligations of AG membership is the submittal of license denials to the group so that potential proliferators cannot "shop around" for items from one country to another. AG members have also adopted a "no undercut policy" in which members agree not to approve an identical sale without first consulting with the member that first denied an

export license. The Department of State, as the lead U.S. representative to the AG, is responsible for submitting license denials to the AG. We found that for various reasons, State was not submitting all denials to the AG, which meant that the AG's "no undercut policy" was not always triggered. We recommended that BIS ask the State Department to seek a ruling from the AG Chair on which denials should be sent to the AG and, based on the response, work with all the licensing referral agencies to develop and implement a written policy and procedures for handling the AG denial notification process.

- ❖ **BIS outreach efforts are mainly targeted to the biological exporting community and could be expanded.** Outreach to the exporting community is a critical component of BIS' mission to build awareness of and compliance with export controls.
  - **BIS outreach efforts to the chemical community need to be expanded.** BIS has a reasonably robust outreach program to the biological exporting community, but outreach specific to the chemical exporting community has been limited. We recommended that BIS explore ways to do more outreach to the chemical exporting community, including low cost outreach alternatives, such as setting up briefings in Washington, mailings, or piggybacking on outreach done in connection with the Chemical Weapons Convention (CWC) compliance activities conducted by BIS' Treaty Compliance Division.
  - **There is an opportunity for focused outreach to registered entities.** The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) and the U.S. Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) jointly maintain a list of select agents and toxins that pose a severe threat to livestock, plants, and/or public health. Entities that possess, use, or transfer agents or toxins on the Select Agent List must register with the appropriate federal agency. Most of the items on the Select Agent List are also controlled under the EAR. We recommended that BIS modify the CCL to include the 25 items<sup>1</sup> on the Select Agent List that were not currently controlled for export, and to inform APHIS- and CDC-registered entities in writing of the need to comply with the EAR and how to apply for an export license if they plan to export controlled items.
- ❖ **BIS' export enforcement office needs to act on the treaty compliance division's investigative referrals.** The Treaty Compliance Division (TCD) is the BIS office that helps ensure U.S. industry compliance with the CWC, among other international treaties. CWC affects companies involved in the production, processing, consumption, import, and export of a range of commercial chemicals and precursors. One of the CWC requirements imposed on industry is the submittal of end-use certificates within seven days of the date of export, providing information about the types and quantities of chemicals being exported, the intended end-use for the chemicals, and certification that

<sup>1</sup> Subsequent to our report, APHIS removed two select agents from its list of select agents and toxins.

the chemicals will be used only for purposes not prohibited by the CWC. Although TCD refers cases of non-compliance to BIS' OEE for investigation and appropriate action, TCD was concerned that OEE was not acting on these referrals. We recommended that OEE inform TCD of the outcome of the CWC-related investigations and that TCD build a system to track CWC investigative referrals.

**B. Status of OIG Recommendations**

**Recommendations for BIS**

2. **Develop and maintain clear, consolidated, and up-to-date guidance, or an internal operations handbook, to strengthen current license application review practices and help ensure that they are consistently applied.**

**Status: Open.** According to its May 2006 action plan, BIS was planning to place the licensing officer operations manual on the BIS employee intranet. However, BIS did not complete the task because (1) the project was never funded and (2) security concerns were raised about the information being included on the employee intranet. As an interim measure, the Operating Committee chair placed the *Operating Committee for Export Policy Handbook of Useful Documents* on the BIS shared drive. While the handbook provides valuable documents for the licensing officers, the handbook was originally prepared by the Operating Committee chair as a training tool for licensing officers and it is not a comprehensive licensing officer operations manual. As such, the Assistant Secretary for Export Administration has tasked the Operating Committee chair to determine what additional documents need to be added to the handbook to make it a comprehensive licensing officer operations manual. Therefore, this recommendation will remain open until BIS completes the manual and has a procedure in place to maintain and update it.

4. **Work with the intelligence community to develop a method to analyze and track the cumulative effect of dual-use exports to countries and entities of concern.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation closed. Specifically, BIS reported that the director of its Chemical and Biological Controls (CBC) Division sent letters to the Weapons Intelligence, Nonproliferation, and Arms Control Center (WINPAC) in December 2005 and May 2006, requesting input from the intelligence community with respect to the cumulative effect of dual-use exports to countries and entities of concern. BIS received a May 24, 2006, classified response from WINPAC suggesting various alternatives to BIS for this purpose.

However, BIS informed us that it did not respond to WINPAC's response because it did not agree with WINPAC's proposals. As such, BIS reportedly plans to perform its own cumulative effect analyses through two measures. First, BIS' intelligence liaison,

established in June 2006 in the office of the Assistant Secretary for Export Administration, will work with the intelligence community to develop a method to analyze and track the cumulative effect of dual-use exports to countries and entities of concern. Second, BIS' Office of Technology Evaluation, also established in 2006, will work with BIS' intelligence liaison and perform detailed analyses of both export license data and general export data available from the Census Bureau. The director of the Office of Technology Evaluation informed us that he hopes to begin some cumulative effect studies sometime in 2007. Until BIS begins to analyze and track the cumulative effect of dual-use exports to countries and entities of concern, this recommendation will remain open.

7. **Explore ways to do more outreach to the chemical exporting community, including lower cost outreach alternatives, such as setting up briefings in Washington, mailings, or piggybacking on outreach done in connection with Chemical Weapons Convention compliance activities conducted by BIS' Treaty Compliance Division.**

**Status: Closed.** According to its May 2006 action plan and our discussions with the former and current director for the CBC Division, BIS personnel participate in quarterly meetings with the American Chemistry Council. In addition, personnel from the CBC Division participated in three outreach sessions for the chemical industry in 2006 put on by BIS' Treaty Compliance Division on the new Chemical Weapons Convention regulation. BIS' actions meet the intent of our recommendation.

8. **Pursue multilateral controls on the 25 items now on the CDC/APHIS Select Agent List that are not currently controlled for export. If agreement cannot be reached multilaterally, evaluate putting the 25 items on the CCL unilaterally.**

**Status: Closed.** On June 12, 2006, BIS published a final rule in the *Federal Register* to unilaterally control the 23 agents currently on the CDC and APHIS lists that were not controlled for export (the remaining two agents missing from the CCL were removed from the APHIS list subsequent to our report). In addition, at the June 2006 AG plenary meeting, the AG agreed to multilaterally control 3 of the 23 agents. As such, on November 24, 2006, BIS issued a final rule in the *Federal Register* revising the unilateral control to multilateral control for these three agents. We encourage BIS to continue to seek multilateral control of the remaining 20 agents. BIS' actions meet the intent of our recommendation.

9. **Inform APHIS and CDC registered entities in writing of the need to comply with the EAR and how to apply for an export license if they plan to export controlled items.**

**Status: Closed.** In its May 2006 action plan, BIS reported that the Deputy Assistant Secretary for Export Administration informed the Directors of APHIS and CDC in a memorandum dated July 2005 of the need to inform their registrants of the requirement to comply with the EAR and to provide them with the website where they can find the EAR.



and information regarding licensing requirements and processing. In addition, in April 2006, the former director of the CBC Division contacted both agencies and again offered assistance in disseminating this information to their registrants. In March 2007, BIS informed us that neither APHIS nor CDC has notified its registered entities in writing (e.g., via e-mail or mass mailing) of the need to comply with the EAR and how to apply for an export license. However, as a result of BIS' multiple requests, APHIS and CDC established a website where the registrants can find a link to BIS' website and to the EAR. As such, BIS' actions meet the intent of our recommendation.

**March 2004 Report:  
Deemed Export Controls**

*Deemed Export Controls May Not Stop the Transfer of Sensitive Technology to Foreign Nationals in the U.S., IPE-16176, March 2004*

**A. Summary of OIG Findings and Recommendations**

During the 2004 reporting period, we conducted a review to determine whether deemed export control laws and regulations prevent the transfer of controlled U.S. technologies and technical information to foreign nationals from countries or entities of concern. We assessed how effectively the dual-use deemed export regulations and policies, as implemented by BIS, prevent such transfer, and whether U.S. industry and academic institutions are complying with the regulations. We also looked at compliance by Commerce's National Institute of Standards and Technology (NIST) and National Oceanic and Atmospheric Administration (NOAA), and whether the Department's Office of Security (OSY) was adequately addressing potential security vulnerabilities associated with foreign national access to Commerce facilities. Some of our observations from the March 2004 review were as follows:

- ❖ **Regulations and policies could enable foreign nationals from countries and entities of concern to access otherwise controlled technology.** Some of the deemed export licensing exemptions in the EAR as well as BIS' deemed export licensing policies may inadvertently affect national security, and require further examination.
  - **Confusion exists over the "use" of controlled equipment.** During our 2004 review, we found that there was confusion over the definition and implementation of controls associated with the "use" of EAR-controlled equipment by foreign nationals, which could result in inappropriate transfers of controlled "use" "technology." Our 2004 report focused in part on the EAR's definition of the word "use" as "operation, installation (including on-site installation), maintenance (checking), repair, overhaul, and refurbishing," because some of the people we interviewed, including certain BIS licensing officials, maintained that all of these activities must occur to constitute "use." We noted that it is unlikely that one individual would accomplish all these tasks in most situations. In addition, two of the four multilateral control regimes<sup>2</sup> define the term either with an "or," or without any connector word (i.e., a bullet listing of the activities). Therefore, we recommended that BIS modify the definition of "use" accordingly.

<sup>2</sup> The United States is a member of several multilateral regimes concerned with the export of dual-use and munitions items to countries of concern. Those organizations include the Australia Group (concerned with the proliferation of chemical and biological weapons), the Missile Technology Control Regime (concerned with the proliferation of missiles capable of delivering weapons of mass destruction), the Nuclear Suppliers Group (concerned with nuclear weapons proliferation), and the Wassenaar Arrangement (concerned mainly with the transfer of conventional weapons).

- **Citizenship/residency requirements could permit unintended access.** BIS' deemed export licensing policy only recognizes a foreign national's most recent citizenship or permanent residency, thus allowing foreign nationals originally from countries of concern to obtain access to controlled dual-use technology without scrutiny if their current citizenship or permanent resident status is with a country not subject to the controls. We recommended that BIS amend its policy to require U.S. entities to apply for a deemed export license for employees or visitors who are foreign nationals and have access to dual-use controlled technology if they were born in a country where the technology transfer in question is EAR-controlled regardless of their most recent citizenship or permanent resident status (unless they are U.S. citizens or permanent residents).
  - **BIS' approval of licenses is inconsistent with EAR policies.** Despite a general policy of denial for exports to certain terrorist-supporting countries, BIS approved 78 of 107 deemed export license applications (73 percent) involving foreign nationals from Iran (76) and Iraq (2) between FYs 2000-2003. BIS officials informed us that its justification for approving those licenses was based on a 1997 BIS legal opinion that deemed export licenses are permissible for foreign nationals from Iran and Iraq because the laws prohibiting exports to those two countries did not apply to deemed exports conducted without knowledge or intent that the software or technology would be sent to Iran or Iraq. We were concerned that BIS' legal opinion did not address the licensing policy for deemed exports and recommended that BIS reevaluate its approval of deemed export licenses for foreign nationals from Iran and Iraq to ensure such approvals are consistent with current law and deemed export control licensing policies and procedures.
  - ❖ **BIS needs a deemed export compliance program.** In our previous reports, we addressed BIS' monitoring of compliance with export licenses and license conditions. During our 2004 review, we learned that BIS did not perform on-site inspections or reviews of deemed export license holders or monitor compliance with license conditions. Placing conditions on a license is an important part of the interagency export license resolution process and provides the bureau with an additional means of monitoring certain transactions. Therefore, we recommended that BIS develop a compliance program that effectively evaluates deemed export license holders' compliance with license conditions.
  - ❖ **Deemed export control compliance by Commerce Bureaus is mixed.** We followed up on recommendations made to NIST and NOAA in our March 2000 review regarding their compliance with deemed export controls.
- NIST: After our March 2000 review, NIST instituted a policy to regulate foreign national access to controlled technologies and provided deemed export control training to its employees. NIST maintained that the majority of its research was fundamental and, therefore, not subject to export controls; however, agency officials were unaware that

controlled "use" technology released during the conduct of fundamental research by foreign nationals might be subject to the EAR. We recommended that NIST review lab equipment to identify EAR-controlled equipment, interview managers of labs to establish what foreign nationals (if any) use or have access to the equipment, and work with BIS to develop an effective means to identify when a deemed export license might be required. In addition, we recommended that NIST provide periodic training on deemed export requirements to its employees who work with EAR-controlled technology or equipment, and that it review research upfront to determine its sensitivity and the applicability of deemed export controls to the research.

**NOAA:** NOAA lacked an overall deemed export control policy to effectively monitor foreign national access to controlled technology despite OIG recommendations to this effect in our March 2000 report and subsequent follow up work in this area. NOAA believed that deemed export controls for the most part did not apply to the work of its line offices because their research was primarily fundamental. Like their counterparts at NIST, however, NOAA officials were unaware that controlled "use" technology during the conduct of fundamental research by foreign nationals might be subject to the EAR. We made several recommendations designed to assist NOAA in establishing a comprehensive export control compliance program.

**Office of Security (OSY):** Finally, given the potential security vulnerabilities identified at these two Commerce bureaus, we recommended that the OSY enforce—including conducting periodic on-site security reviews—its security policies related to foreign national visitors or guest researchers in Commerce facilities, and hold those bureaus accountable.

## **B. Status of OIG Recommendations**

### **Recommendations for BIS**

- 1. Modify the definition of "use" in the EAR in order to help licensing and enforcement officials better implement and enforce deemed export controls associated with the technology for the use of controlled equipment.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation closed. Although it originally agreed with our recommendation to modify the definition of "use" in the EAR, the action plan reported that BIS decided not to modify the current definition based on its review of the more than 300 comments it received in response to its March 28, 2005, advance notice of proposed rulemaking published in the *Federal Register* on OIG recommendations related to deemed exports. Many of the comments received expressed strong opposition to the proposed changes. As a result, the Secretary of Commerce established a Deemed Export Advisory Committee in June 2006 to review BIS' deemed export control policy, including the OIG

report recommendations. According to BIS officials, the committee's report is expected to be finalized sometime in late 2007.

We recognize the substantial time and effort BIS has devoted to our deemed export recommendations. We believe our report helped open this issue to public debate and raise the awareness level of many in the academic and research community. We will keep this recommendation open until the Deemed Export Advisory Committee publishes its report and BIS takes the necessary action to develop revised regulatory language and guidance that is clear, understandable, and carefully targeted to address identified threats without unnecessarily burdening exporters or the scientific community.

**6. Clarify and periodically update the deemed export "Questions and Answers" in Supplement No. 1 to Part 734 of the EAR.**

**Status: Open.** According to its May 2006 action plan, BIS prepared clarifications of the relevant "Questions and Answers" from Supplement No. 1 to Part 734 of the EAR and was going to post them to the BIS website in June 2006. While BIS did clarify some of the answers on its website (under the Deemed Exports Frequently Asked Questions page), it did not update one of the "answers" we questioned in our report from the supplement itself. Specifically, Question A(4) from the supplement, discusses whether "prepublication clearance" by a government sponsor would void the "publishability" exemption in the EAR and trigger the deemed export rule. The answer provided in the supplement states that "no...the transaction is not subject to the EAR."

However, in response to a similar question on its website, BIS states that,

"Under the Export Administration Regulations (EAR), U.S. government sponsored research is handled very much like corporate sponsored research. It may be 'fundamental research,' or it may be proprietary (See Question 22)."

The answer to Question 22 on BIS' website states,

"It depends. You need to look at the research and the contract terms for release of the results of the research. If there are no conditions placed on the research, and it is the intent of the research team to publish its findings in scientific literature, then it is considered 'fundamental research,' and no license is required. *If the contract requires that the private corporation review the findings of the research team with the intent of controlling what results are to be released in open literature, then the research is considered proprietary, and a license is required.*" [Emphasis added.]

Given that Supplement No. 1 to Part 734 of the EAR states that the research in question would not be subject to the EAR but the answers to Questions 22 and 23 on BIS' website state that it might be, we believe BIS should clarify the answer provided to this question in the supplement. As such, until BIS revises the answer to this question in Supplement No. 1 to Part 734 of the EAR, this recommendation will remain open.

7. **Develop a compliance program that effectively evaluates deemed export license holders' compliance with license conditions. At a minimum, the review should determine whether:**
- a. All research, including access to technology, is being performed in accordance with license conditions;
  - b. Deviations to the foreign national's job responsibilities stay within the technical parameters of the license; and,
  - c. The technology control plan used by the subject U.S. entity accurately and fully reflects its practices.

**Status:** Closed. In June 2006 BIS issued procedures for deemed export license compliance verification inspections. Based on our review of the procedures, it appears that the inspection objectives outlined in our recommendation above are adequately covered.

Exemptions  
(b)(2) and  
(b)(7)(E)

BIS' actions meet the intent of our recommendation.

#### Recommendations for NIST

5. **Adhere to departmental policy regarding vetting foreign national visitors and guest researchers before allowing them access to its facilities.**

**Status:** Open. According to NIST's May 2006 action plan, NIST requires sponsors—a NIST employee who is responsible for the day-to-day activities associated with the visit—for each foreign national visitor or guest. NIST requires sponsors to complete and submit NIST Form 1260, Report of Foreign Visitor(s) and/or Lecturer(s), for each Foreign Visitor or Guest. The action plan also states that the NIST police in Gaithersburg and the Commerce police in Boulder will deny access to a foreign national if the sponsor does not provide complete and accurate information sufficiently in advance of a visit. In addition, each sponsor is required to receive a counterintelligence briefing, including employees who might serve as escorts. According to OSY officials, these employees may be briefed on an annual basis rather than each time a foreign visit occurs. Furthermore, each sponsor must complete and sign the "Certification of Conditions and

Responsibilities for the Departmental Sponsor of FN Guests" for each foreign national guest. This document is then sent to the appropriate OSY unit for processing and clearance.

Based on OIG discussions with OSY and NIST officials as well as a review of NIST's training materials related to this matter, NIST appears to be implementing the security measures outlined in the new Department Administrative Order (DAO) 207-12, Foreign National Visitor and Guest Access Program. Both OSY and NIST reported several examples where foreign nationals were not allowed access to NIST facilities because the sponsor(s) did not follow the new procedures. In addition, while the number of guest researchers appears to have remained constant over the past several years, the number of visitors reported has greatly increased. OSY officials attribute this increase to the new DAO requirements and subsequent outreach efforts by OSY and NIST.

However, while NIST officials appear to be adhering to the new DAO in practice, the guidance contained in the NIST Administrative Manual on this subject has not been revised to reflect the changes. As such, this recommendation will remain open until NIST incorporates its new access controls into the NIST Administrative Manual.

#### Recommendations for NOAA

1. **Create and implement agency-wide export control policies and procedures relating to foreign national access to EAR-controlled technology.**

**Status:** Closed. In May 2006 NOAA promulgated NOAA Administrative Order (NAO) 207-12 on Technology Controls and Foreign National Access. The order sets forth agency-wide policies and procedures governing export controls and foreign national access and incorporates policies and procedures contained in the new DAO 207-12. Based on our discussions with NOAA and OSY officials as well as our review of applicable documentation, NOAA headquarters appears to be adequately monitoring the implementation of the policies and procedures outlined in the NAO. We are very pleased to see the substantial effort NOAA has expended to meet our recommendation. Accordingly, this recommendation is closed.

2. **Review its equipment inventory to determine:**
  - a. **What commodities are EAR-controlled.**
  - b. **What foreign nationals have access to those commodities and whether improved access controls are needed.**
  - c. **Whether a deemed export license may be required.**

**Status:** Closed. In cooperation and consultation with BIS, NOAA has made extensive progress toward meeting this recommendation since our March 2004 report. Because of its size and structure (more than 800 physical locations across the country, as well as



ships and aircraft), NOAA developed a two-stage implementation plan for its export control compliance program. The first stage, termed Priority 1, focused on all areas where foreign nationals are present and all areas involving national critical infrastructure, including those with certain computer and satellite systems used for weather and climate data collection, analysis, and prediction. Priority 2 sites are those without foreign nationals or critical infrastructure.

For priority 1 sites, NOAA reportedly began by identifying and logging the location of all foreign national employees, contractors, guests, and other program participants (excluding permanent residents) present at NOAA facilities. This portion of the project was originally completed in September 2005. NOAA then conducted a review of all equipment and technology in areas where foreign nationals were found to be present, and in areas with critical infrastructure. Once the inventories were complete, NOAA sent the inventories to BIS for review. NOAA completed this portion of the project in October 2005. NOAA line offices then developed access control plans for all facilities that reported controlled technology. NOAA also instituted an annual certification process to ensure controlled technology assessments are completed at Priority 1 facilities. Under this process, NOAA's Deputy Assistant Administrators are required to annually certify that a controlled technology inventory and access controls are in place for locations hosting foreign national guests that have controlled technology. Based on our discussions with NOAA headquarters officials, we learned that they had just finished reviewing the first year certifications and are in the process of working with the line offices to reconcile noted discrepancies between headquarters records and those of the line offices.

At Priority 2 sites, NOAA plans to conduct controlled technology inventories on a case-by-case basis (e.g., when the facility expects to host foreign national guests). According to NOAA, an inventory will not be required if the facility will only host a foreign national visitor because NOAA will utilize escorts and other access controls described in the NAO 207-12 to mitigate any potential threats. According to BIS officials, NOAA's risk management approach is an appropriate risk management strategy. We agree. Accordingly, this recommendation is closed.

3. **Establish an employee training program that effectively disseminates the necessary deemed export control provisions to all NOAA employees that work with EAR-controlled technology and/or equipment.**

**Status: Closed.** According to its June 2006 action plan, formal training was completed for NOAA executives, managers, and management representatives in 2005. In addition, NOAA issued a NOAA-wide e-mail on May 19, 2006, to make employees aware of their responsibilities under the DAO and NAO. NOAA plans to conduct additional "formal" training on an annual basis. The next scheduled training session is tentatively planned for summer 2007. Furthermore, departmental sponsors who host foreign national guests and visitors are required to read the Espionage Indicators Guide and read/sign the Certification of Conditions and Responsibilities for Departmental Sponsors of Foreign

National Guests. Finally, NOAA established a deemed export website that offers additional training and awareness for NOAA employees. NOAA's actions meet the intent of our recommendation.

**4. Review NOAA research and NOAA-sponsored research to determine the applicability of deemed export controls.**

**Status: Closed.** According to its June 2006 action plan, NOAA established a mandatory grant/cooperative agreement/contract provision requiring awardees to comply with EAR requirements. In June 2006, NOAA issued a NOAA-wide e-mail providing additional guidance concerning the applicability of the EAR to NOAA research and NOAA-sponsored research. After consultation with and training from BIS, NOAA acknowledged that EAR controls apply to particular aspects of research and that NOAA needs to heighten its awareness within the research community to this issue. As such, NOAA developed a table, accompanying research guidance, and awareness documents to assist researchers to determine whether technology covered during aspects of research could be subject to the EAR. BIS stated that the controls and procedures instituted by NOAA address the research issue sufficiently, provided that the researchers constantly monitor their research, taking into consideration whether or not any foreign nationals may have access to it. Based on our discussions with NOAA and BIS officials as well as a review of applicable documents, NOAA's actions meet the intent of our recommendation.

**5. NOAA should formulate adequate security procedures governing visits by foreign nationals to its facilities that adhere to departmental security policy.**

**Status: Closed.** The NAO on technology controls and foreign national access, discussed under Recommendation 1, includes security procedures governing visits by foreign nationals to its facilities. These procedures are consistent with current departmental security policies covering foreign national access to Commerce facilities. NOAA and OSY reported an increase in the number of foreign national visitors being submitted for clearance since the DAO and NAO have been implemented. Based on our review of applicable documentation, it appears that NOAA headquarters is holding NOAA line offices, and particularly the Deputy Assistant Administrators, accountable for complying with the new security procedures. As such, NOAA's actions meet the intent of our recommendation.

**Recommendation for the Chief Financial Officer and Assistant Secretary for Administration**

1. **Enforce—including conducting periodic on-site security reviews—the Department's security policies related to foreign national visitors or guest researchers and hold Commerce bureaus accountable for compliance with those policies.**

**Status:** Open. Commerce's Office of the Chief Financial Officer and Assistant Secretary for Administration, through the Office of Security, issued DAO 207-12, Foreign National Visitor and Guest Access Program, in April 2006. OSY reported that,

Exemption (b)(2)



this recommendation will remain open.

**March 2003 Report:  
Export Enforcement**

**Improvements Are Needed to Better Enforce Dual-Use Export Control Laws, IPE-15155,  
March 2003**

**A. Summary of OIG Findings and Recommendations**

During the 2003 reporting period, we completed a review of BIS' efforts to enforce export control laws. Specifically, we reviewed BIS' activities related to its (1) conduct of investigations (including agent training and the administrative remedy process); (2) interactions with the law enforcement community (e.g., U.S. Customs Service<sup>3</sup> and the Federal Bureau of Investigation), the intelligence community, the U.S. Postal Service, and U.S. Attorneys' Offices; (3) monitoring of license conditions; (4) outreach; and (5) end-use checks. Our report identified a number of deficiencies, several of which we had identified in our 1999 export license review. Some of our observations and conclusions from the February 2003 review were as follows:

- ❖ **Better cooperation with other federal agencies could strengthen Export Enforcement's investigative process.** Interagency cooperation on export enforcement is essential to better safeguard U.S. national security and foreign policy interests. This collaboration is imperative to using limited investigatory resources efficiently, gaining access to the resources and expertise of others, reducing duplicative efforts, and conducting successful prosecutions. We examined Export Enforcement's relationship with various Assistant U.S. Attorneys located across the country, as well as with the U.S. Customs Service, the Federal Bureau of Investigation, the Central Intelligence Agency, and the U.S. Postal Service. Among other things, we reiterated our 1999 recommendation that BIS work more closely with the Postal Service to identify potential violations of dual-use export control laws.
- ❖ **BIS was not adequately monitoring licenses with reporting conditions.** The EAR allows BIS to further limit transactions and monitor shipments authorized under an export license by placing conditions on the license. There are 54 possible conditions, 7 of which have reporting requirements (i.e., the licensee must provide BIS with various types of documentation concerning the shipment). We found that BIS was not adequately monitoring licenses with reporting conditions—a problem we identified in our 1999 export licensing report. When license conditions are not carefully monitored, BIS cannot be certain that goods were not diverted to unauthorized end users or that exporters who fail to comply with conditions are denied subsequent licenses.

<sup>3</sup> The U.S. Customs Service transferred from the Department of the Treasury to the Department of Homeland Security in 2003. Most of its responsibilities, including those related to enforcement of export control laws, now reside in the Bureau of Immigration and Customs Enforcement.

- ❖ **BIS was not strategically conducting outreach to U.S. exporters.** We found that while BIS may contact U.S. exporters to educate them about export controls, OEE did not have a national plan for proactively identifying and conducting outreach to manufacturers and exporters of critical commodities.
- ❖ **BIS should continue to improve the end-use check process.** End-use checks, an important part of both the license evaluation process and enforcement process, verify the legitimacy of dual-use export transactions controlled by BIS. While our evaluation found that end-use checks are a valuable tool, we found a number of problems we identified in 1999 remain unresolved. Specifically, U.S. and Foreign Commercial Service officers, who conduct most of the pre-license checks, had not received training needed to conduct effective checks, and BIS sometimes did not provide adequate product information in its formal requests for end-use checks. In addition, the end-use check handbook needed to be revised to include instructions for coordinating checks with other U.S. agencies at a particular overseas post, and made available on-line to ensure that officers at post have easy access to the most recent guidance. We also found that the Safeguards Verification Program was working reasonably well. However, improvements in several areas—such as the writing and dissemination of trip reports and coordination with other U.S. agencies at a particular overseas post—would likely make the program more effective.
- ❖ **Export Administration's processing of license determinations for the U.S. Customs Service was untimely.** The Export Administration Act allows Customs to detain a shipment for up to 20 days, after which it must formally seize or release the goods. Within this 20-day window, Customs must ascertain whether the commodity requires a valid license for export. To do this for dual-use exports, it must request a license determination from BIS. As in 1999, we found that BIS was slow to process these requests: fewer than half of the FY 2002 requests we examined were processed within 20 days. We also found that the determination referral process was not automated and that the two agencies had insufficient guidance on the standard procedures and format for (1) submitting license determinations requests, (2) processing them in a timely manner, and (3) providing recourse when they are late.

**B. Status of OIG Recommendations**

**Recommendations for BIS**

15. **Work with the U.S. Postal Service to clarify the latter's appropriate role in helping prevent individuals from circumventing U.S. export control laws through the U.S. mail. As a part of that effort, increase interagency cooperation and coordination in identifying potential violations of dual-use export control laws.**

**Status: Open.** We originally closed this recommendation in our March 30, 2006, NDAA follow-up report because OEE had established what appeared to be a working relationship with the U.S. Postal Service. However, after two joint initiatives in 2005, the

coordination between the agencies appeared to stop. OEE's unit chief responsible for this

Exemptions  
(b)(2), (b)(5)  
and (b)(7)(E)

Accordingly, this recommendation is re-opened.

23. **Notify the licensing referral agencies of all unfavorable pre-license check results and any subsequent BIS recommendation to return the relevant license application without action.**

**Status: Closed.** According to its May 2006 action plan, BIS considers this recommendation closed. Specifically, it states that the reviewing agencies already have the ability to receive all PLC cables through their individual communication centers and provide comments to Commerce before final action is taken on a license application. BIS sent a memorandum to the referral agencies on May 8, 2006, recommending that each agency utilize its established communication and distribution center to receive cable traffic on PLCs and PSVs. According to the Deputy Assistant Secretary for Export Administration, none of the agencies responded to this memorandum. While we agree that the referral agencies can request copies of all cables involving end-use checks, we believe it would be more efficient and transparent for BIS to notify them—especially of negative checks—through the established licensing referral process since this information is already incorporated into the official licensing record. As such, this notification should not be a burden to BIS licensing officers. Nonetheless, while we disagree with BIS on this matter, this recommendation is closed because the referral agencies have a mechanism in place to receive information on PLCs and PSVs.

**24. Ensure that Export Administration works with Customs in the following areas:**

- b. Automate the license determination referral process as part of BIS' modernization of ECASS.**

**Status: Open.** According to its May 2006 action plan, BIS is addressing this recommendation as part of Stage 3 of the ECASS program—the ECASS Modernization Project—which is tentatively scheduled for completion in FY 2013. As such, this recommendation will remain open until the license determination referral process is automated.



**February 2002 Report:  
ECASS Modernization Efforts**

***BXA Needs to Strengthen its ECASS Modernization Efforts to Ensure Long-term Success of the Project, IPE-14270, February 2002***

**A. Summary of OIG Findings and Recommendations**

During the 2002 reporting period, we completed a review of BIS' efforts to upgrade its automated licensing and enforcement systems. In particular, we sought to determine whether BIS had (1) adequately considered business process changes and appropriate resources for the life of the project; (2) established an infrastructure capable of monitoring project costs, schedule, and deliverables; (3) developed a realistic, achievable system-design schedule; and (4) implemented previous OIG recommendations pertaining to modernization of the export licensing system and other internal control issues. While our review found that BIS made some progress on its redesign effort, it also highlighted several areas needing improvement to ensure long-term success of the project. Some of our observations and conclusions from the February 2002 review were as follows:

- ❖ **BIS made some progress on its redesign effort.** Specifically, BIS was developing, in conjunction with Defense, a "front-end" licensing subsystem, known as the Simplified Network Application Processing (SNAP) system to allow exporters to submit all types of license applications as well as the corresponding supporting documentation on-line. In addition, BIS implemented its new Export Enforcement system, known as the Investigative Management System.
- ❖ **BIS needed better planning to ensure long-term success of the project.** Specifically, BIS needed to determine what business process reengineering recommendations needed to be implemented, prepare a revised cost estimate for its system redesign, and determine all of the ECASS 2000+ requirements, including user and security requirements.
- ❖ **BIS needed to strengthen its modernization effort by implementing established information technology management best practices.** Specifically, at the time our fieldwork was completed, the ECASS 2000+ project lacked adequate management tools, including (1) a project management plan, (2) target architecture, (3) a software acquisition training program, and (4) configuration and risk management processes.

Our report also noted that interagency cooperation on planning, design, and development of a dual-use export licensing system had been mixed because BIS had not involved the other licensing agencies in its own redesign effort beyond SNAP. For example, BIS was developing ECASS licensing requirements without input or validation from the licensing referral agencies. We recommended that the other licensing agencies should be included in the development of licensing requirements for any new system.

**B. Status of OIG Recommendations**

**Recommendations for BIS**

- 2. Determine what resources are needed for ECASS 2000+ in the short-term (FYs 2002 and 2003) and long-term (FYs 2004 through 2006), how to secure adequate funding levels, and whether it is necessary to extend the project timeframe.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation closed because funding for its ECASS-Redesign project is incorporated in its base budget. However, as we previously reported, the ECASS program comprises two phases: short-term (stages 1 and 2) and medium-term (stage 3). The goal of the short-term phase, defined as "ECASS Redesign," is to migrate the current ECASS Legacy system to a stable supportable platform. BIS reported that it would need funding for this first phase through FY 2009, although this date has now slipped again to 2011. The goals of the medium-term phase, now defined as "ECASS Modernization," include (1) business process reengineering and support for new software applications, (2) a data repository, and (3) a commercial content and digital asset management system to store and integrate supporting application-related paper and electronic documents.

The intent of our recommendation was for BIS to identify and secure adequate funding for its entire ECASS project including redesign and modernization. While BIS was able to secure funding for ECASS-Redesign in FY 2007, it still needs to secure funding for ECASS-Redesign through FY 2011. In addition, while BIS needs to secure funding for ECASS-Modernization from FY 2007 through FY 2013, it failed to obtain the requested funding in FY 2007. Specifically, BIS requested \$3 million for ECASS-Modernization from the department in FY 2007, but it only received \$274,000. BIS stated that the Department will provide another \$274,000 for ECASS-Modernization in FY 2008. However, BIS officials informed us that funding for both ECASS-Redesign and ECASS-Modernization during the next three fiscal years will be a challenge. Therefore, this recommendation will remain open until BIS secures adequate funding or develops a plan to implement both projects with existing resources.

- 3. Ensure that appropriate users, including those from referral agencies, validate the systems requirements for the licensing subsystem.**

**Status: Open.** While BIS reported in its May 2006 action plan that it considered this recommendation closed, BIS' CIO and her staff later acknowledged that, with the exception of the Simplified Network Application Process (SNAP-R) effort, which was completed in 2006, BIS has not engaged the referral agencies in a discussion of the requirements for its redesign or modernization efforts. However, the CIO informed us that BIS intends to establish an interagency committee, in Spring 2007, to discuss and review requirements for the redesign of its current licensing system. However, the requirements definition stage—which will include input from the licensing referral agencies—is not a part of its ECASS-Redesign efforts but rather the ECASS-

Modernization efforts. BIS reported that interagency involvement would be sought in FY 2009 for this purpose. Therefore, this recommendation will remain open until BIS fully engages both BIS and interagency licensing officials in the definition and validation of systems requirements for the licensing subsystem under its ECASS-Modernization efforts.

4. **Document security requirements as soon as possible and determine how to fund them, including whether BIS should reallocate existing resources or make them a high funding priority.**

**Status: Open.** According to its May 2006 action plan, BIS considers this recommendation to be closed. Specifically, it reported that the ECASS-Redesign project plan provided for meeting all security requirements. However, BIS' CIO informed us in February 2007 that BIS recently allocated \$1 million for additional security-related requirements for ECASS-Redesign resulting from passage of the Federal Information Security Management Act of 2002 and other technical requirements related to cyber espionage that was attempted against BIS systems in FY 2006. Specifically, the money will be allocated to newly defined ECASS-Redesign certification and accreditation requirements in FY 2007.

While these efforts will impact BIS' overall information technology security program, they are not fully directed at its ECASS-Modernization system. Until BIS completes its verification and validation of its security requirements for ECASS-Redesign and prepares specific security requirements for its ECASS-Modernization project, this recommendation will remain open.

11. **Complete the target architecture and select a location to house BIS' new export licensing automation system during the second quarter of FY 2002.**

**Status: Closed.** According to its May 2006 action plan, BIS selected a location to house its new export licensing automation system. (It previously completed its target architecture in May 2005.) Specifically, it selected a

Exemption  
(b)(2)

BIS' action meets the intent of our recommendation.

**March 2002 Report:  
Interagency Review of  
Federal Export Licensing Systems**

**Interagency Report: Interagency Review of Federal Automated Export Licensing Systems**  
D-2002-074, March 2002

**A. Summary of Interagency OIG Findings and Recommendations**

In addition to our assessment of Commerce's system (see February 2002 report above), the interagency OIG review team looked at the various automated dual-use and munitions export licensing systems maintained by Commerce, Defense, Energy, and State to determine whether the systems could better interact and whether system modernization initiatives were in accordance with federal policies and regulations. The review found that dual-use export licensing involves multiple automated systems owned and operated independently by the licensing and review agencies. Many of these systems were developed prior to some of today's information-sharing technologies and are not optimally effective given present-day information-processing capabilities. Current systems limitations include (1) differing security standards among agencies, (2) cumbersome manual and paper-based processes, and (3) lack of a comprehensive export-information database that can be used to assess cumulative effect of multiple exports. Improvement alternatives, beyond enhancing existing system interfaces, were not adequately considered.

**B. Status of Interagency OIG Recommendations**

**Recommendations for BIS**

3. **Develop a common central repository for all unclassified data records that pertain to the review and approval of an export license.**

**Status: Open.** According to its May 2006 action plan, BIS is addressing this issue as part of its ECASS-Redesign and -Modernization projects. Specifically, the common central repository for all unclassified data records that pertain to the review and approval of an export license will be completed as part of ECASS-Redesign through the ECASS Migration Data Base. Access to that data base will be made available to interagency licensing officials consistent with BIS policy in 2009. The broader objective—BIS' contribution to definition and development of an interagency defined, shared, and implemented common central repository for all unclassified data records that pertain to the review and approval of an export license—is dependent on the ECASS-Modernization project, with a conservative target date of FY 2013. As such, this recommendation will remain open until BIS implements its central repository.

**March 2001 Report:  
Commerce Control List**

**Management of Commerce Control List and Related Processes Should Be Improved,  
IPE-13744, March 2001**

**A. Summary of OIG Findings and Recommendations**

During the 2001 reporting period, we completed a review of the Commerce Control List (CCL). The CCL, which is maintained by BIS, specifies the commodities, software, and technology that are subject to the EAR, as well as those controls that are placed on these items, depending on the country to which they are to be exported. Each item on the CCL is grouped by type of commodity and assigned an Export Control Classification Number (ECCN). The U.S. Munitions List, administered by State, specifies items subject to the International Traffic in Arms Regulations. Businesses use both lists to determine whether they need to apply for an export license for items they want to export.

Our review examined how the CCL was managed and sought to determine whether there was a need for greater transparency in BIS' commodity classification process and State's commodity jurisdiction process. Our observations and conclusions from the March 2001 report include the following:

- ❖ **Improvements were needed in BIS' management of the CCL.** We recommended several ways in which BIS could improve its management of the CCL, all of which have now been closed. Nonetheless, we note that our recommendation to explore additional ways to make the list more user-friendly remains relevant today. Exporters and potentially unwitting exporters continue to have difficulty determining whether particular items or technologies are included on the CCL and whether certain transactions, items, or technologies are subject to the EAR in the first place.
- ❖ **There was a continuing need for improvements in the commodity classification process.** Among other findings, we determined that the commodity classification process was not transparent because BIS was still not referring all munitions-related classifications to Defense and State for review, as directed by the 1996 National Security Council guidelines. This created the potential for incorrect classifications.
- ❖ **The commodity jurisdiction (CJ) process needed improvement.** We found that CJ determination requests were not being processed in a timely manner by any of the involved agencies. In addition, determination requests were being processed manually, increasing the chance that documents would be lost, misplaced, or misdirected, and subject to unnecessary delays. Furthermore, none of the agencies involved in the process was adequately informed about the jurisdiction opinions provided by the other agencies. Finally, there were concerns that State may be making incorrect CJ determinations



because it did not always consult with BIS or Defense. We found two instances where this had occurred, causing inconvenience and expense to the exporters involved.

**B. Status of OIG Recommendations**

**Recommendations for BIS**

7. **Request that the National Security Council (NSC) form a working group (including Commerce, Defense and State) to (a) review the 1996 commodity classification guidance, (b) revise it if necessary, and (c) develop specific criteria and procedures to ensure that the referral of munitions-related commodity classifications to Defense and State is handled in a timely, transparent, and appropriate manner by all agencies involved.**

**Status: Closed.** According to its May 2006 action plan, BIS considers this recommendation closed. Specifically, BIS developed specific criteria and procedures for use by licensing officers in order to ensure that referrals are timely, transparent, and appropriate. BIS shared this guidance with the Departments of Defense and State in a memo dated May 23, 2006. According to the Deputy Assistant Secretary for Export Administration, neither Defense nor State provided any feedback to BIS on the guidance. Based on our review of the guidance and discussions with BIS officials on its current, internal commodity classification review process, it appears that BIS' actions meet the intent of our recommendation.

8. **Provide State with a copy of the final determinations for any commodity classification it reviews.**

**Status: Closed.** According to its May 2006 action plan, BIS considers this recommendation closed. Specifically, BIS reported that beginning in April 2006, the final disposition of all applicable commodity classifications would be transmitted to State on a quarterly basis. We reviewed copies of the fax coversheet transmitting the final dispositions on applicable commodity classifications as well as the determinations themselves. However, according to State officials, they do not believe they are receiving these documents. In the spirit of cooperation, we suggest that BIS may want to reconcile this issue with State. BIS' actions meet the intent of our recommendation.

**March 2000 Report:**  
**Deemed Exports, Visa Application Review**  
**Process, and Committee on Foreign Investment in**  
**the United States**

*Improvements Are Needed in Programs Designed to Protect Against the Transfer of Sensitive Technologies to Countries of Concern, IPE-12454-1, March 2000*

**A. Summary of OIG Findings and Recommendations**

During the 2000 reporting period, we focused on three activities that the Department of Commerce, principally through BIS, carries out or participates in to help prevent the illicit transfer of sensitive technology: (1) deemed export control activities, (2) the Visa Application Review Program, and (3) efforts in support of the Committee on Foreign Investment in the United States (CFIUS). The specific objectives of the review were to (1) examine the deemed export regulations, including their implementation and enforcement by BIS, as well as compliance with the regulations by industry and other federal agencies; (2) determine the effectiveness of BIS' Visa Application Review Program in preventing the illicit transfer of U.S. technology to countries and entities of concern; and (3) survey selected aspects of CFIUS' efforts.

**B. Status of OIG Recommendations**

This report included recommendations for various Commerce bureaus, including, BIS, the International Trade Administration, NIST, and NOAA. Over the past eight years, these agencies have taken action to implement the recommendations from this report. However, given the current interest in CFIUS by Congress, we conducted a new survey of selected aspects of Commerce's role in the CFIUS process (see appendix B for an update on Commerce's activities in the CFIUS process).

## Appendix B

### Survey of Selected Aspects of the CFIUS Process

Given the current interest in the Committee on Foreign Investment in the United States (CFIUS) both within and outside the U.S. government, we followed up on our March 2000 findings and recommendations<sup>1</sup> related to select aspects of CFIUS' monitoring of foreign investment for national security reasons. While we still have questions about the effectiveness of the overall CFIUS process, considerable improvements have been made with regard to the CFIUS activities handled within the Commerce Department. We believe these improvements provide for better coordination among departmental bureaus and greater transparency in Commerce's decision-making process.

#### BACKGROUND

CFIUS was established by Congress in 1975 for the purpose of monitoring and evaluating the impact of foreign investment in the United States. In 1988 the committee's responsibilities were expanded under the Exon-Florio amendment to the Defense Production Act of 1950. Exon-Florio authorizes the President to suspend or prohibit any foreign acquisition, merger, or takeover of a U.S. company that threatens national security. The provision does not provide a precise definition of national security; rather it gives the U.S. government the ability to redefine that term to keep pace with technological and political developments and address emerging threats as they arise. CFIUS is comprised of 12 federal agencies and chaired by the Secretary of the Treasury (see Figure 1). While members of the intelligence community are not voting members of CFIUS, they do provide intelligence assessments on all cases.

Figure 1: CFIUS Member Agencies

U.S. Department of the Treasury  
U.S. Department of State  
U.S. Department of Defense  
U.S. Department of Commerce  
U.S. Department of Homeland Security  
U.S. Department of Justice  
U.S. Trade Representative  
Office of Management and Budget  
Council of Economic Advisors  
National Security Council  
National Economic Council  
Office of Science and Technology Policy

Source: Department of the Treasury

#### Overall CFIUS Process

Either the U.S. company or the foreign entity involved in an acquisition of or investment in a U.S. company may submit a voluntary notice, or "filing," of the transaction to CFIUS. In addition, under Exon-Florio, a committee member can submit a notice of a proposed or completed acquisition for a national security review. If the committee agrees that the transaction

<sup>1</sup>U.S. Department of Commerce Office of Inspector General (Commerce OIG), March 2000. *Improvements are Needed in Programs Designed to Protect Against the Transfer of Sensitive Technologies to Countries of Concern*, IPE-12454-1.

raises national security concerns, the CFIUS staff chair will contact the parties and request a filing. If the parties do not file, any CFIUS member can initiate the filing.

Once the committee receives a complete CFIUS filing from a company, it has 30 days to determine whether the transaction involves national security concerns that should be investigated. Because of the limited time frame for the reviews, the committee encourages companies to pre-file before submitting documentation for an official 30-day review. Pre-filing helps CFIUS evaluate the notifications for any errors or inconsistencies.

If any member of CFIUS has national security concerns regarding the transaction, the committee conducts a 45-day investigation. During the investigation, the agency/agencies requesting the investigation are responsible for information gathering, analysis, and drafting the report and recommendation to the President. Other CFIUS members may be involved in the investigation if they have relevant expertise and issues of concern. Upon completion of the investigation, the President has 15 days to decide whether to prohibit the transaction or allow it to go forward. Upon completion of his review, the President sends a classified report to the Congress, stating his decision and explaining his reasons.

It should be noted that sometimes a transaction is still allowed to proceed, even when a CFIUS member has concerns with the transaction. In these cases, the CFIUS member may enter into a mitigation agreement with the parties. These agreements are aimed at minimizing the threat to national security—while still allowing the transaction to move forward—by requiring the parties in the transaction to establish and implement a set of security and other measures.

#### Commerce's Internal CFIUS Review Process

Within Commerce, the Secretary has delegated responsibility for coordinating the Department's evaluation of CFIUS filings to the International Trade Administration (ITA). However, the Bureau of Industry and Security (BIS) also plays a critical role in Commerce's CFIUS activities. In addition, the Deputy Secretary is kept apprised of CFIUS cases under review, and may be called upon to decide the Department's position in a specific case if ITA and BIS cannot agree.

Prior to April 2006, the Deputy Under Secretary for ITA was responsible for coordinating the evaluation of CFIUS notifications within Commerce. Since then, ITA's Assistant Secretary for Market Access and Compliance has had the policy lead on CFIUS efforts. However, ITA's Manufacturing and Services' Office of Competition and Economic Analysis (OCEA), where the CFIUS coordinator resides, provides the actual working-level support on CFIUS cases. Since the designation of a new CFIUS coordinator in October 2006, ITA's recommendations are now presented in writing to the Assistant Secretary for Market Access and Compliance. Additionally, the new CFIUS coordinator requires that the following documents be included in each CFIUS case file that ITA reviews:

- Business Fact Sheet. This document provides basic information about the businesses and industries involved in the proposed transaction. On a pilot basis, OCEA is sharing the fact sheets with BIS and the other "economic" agencies within CFIUS (i.e., the United States Trade Representative, State, the Council of Economic Advisors, and the Office of

Science and Technology Policy). ITA has not yet decided if it will share these fact sheets with the entire CFIUS group.

- Analysis Memorandum. Relevant Manufacturing and Services units (e.g., Aerospace and Autos, Materials and Machinery, Technology and Electronic Commerce) are required to prepare an in-depth analysis of the proposed transaction and present recommendations on whether it is appropriate for ITA to clear the case.

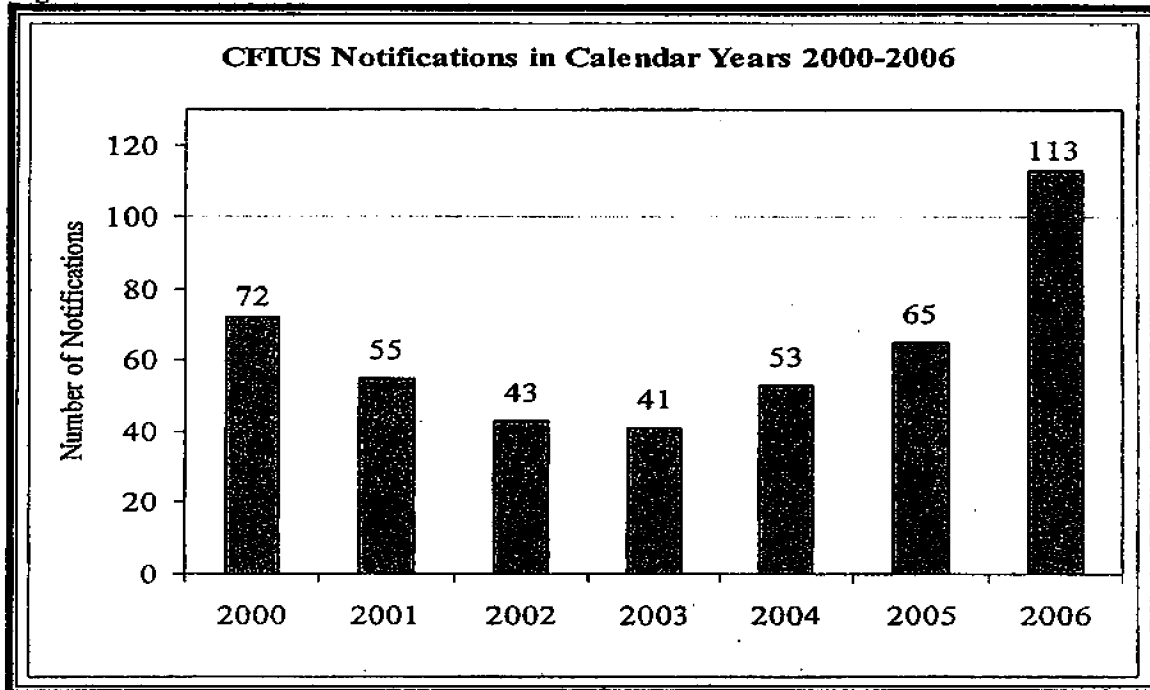
Within BIS, the responsibility for reviewing CFIUS notifications is assigned to Export Administration's Office of Strategic Industries and Economic Security (OSIES). In general, this office is responsible for a wide range of issues that relate to both the national and economic security of the United States. As a participant in the Department's CFIUS process, OSIES' role is to ensure that foreign investment will not negatively impact the U.S. defense industrial base's capacity and capabilities to meet current and future national security requirements. The office's database on CFIUS filings is the only comprehensive database on CFIUS filings available in the Department. In addition, BIS' Export Enforcement units screen all parties associated with CFIUS filings to ensure that there are no export enforcement concerns relevant to the CFIUS case under review.

ITA coordinates the Department's response on CFIUS notifications through its CFIUS Working Group. The group meets weekly and mainly consists of representatives from ITA and BIS. The Department's Office of General Counsel also participates on occasion when legal expertise is required. Additionally, the CFIUS Working Group consults with other Commerce bureaus on a case-by-case basis. For example, the National Institute of Standards and Technology was consulted on a case involving voting machines, and the National Telecommunications and Information Administration was consulted on a case involving a company that manufactured network security products. ITA prepares a weekly report summarizing all pending CFIUS cases for the Deputy Secretary's review. In addition, the Deputy Secretary attends "Deputy meetings" at the Department of the Treasury on CFIUS matters, on an as needed basis.

#### CFIUS Notifications

Between 2000 and 2006, CFIUS reviewed 442 foreign acquisitions of U.S. companies for potential national security concerns. In 2006 CFIUS reviewed 113 filings, a 74 percent increase over 2005 and more than twice the average number for the past 6 years (see Figure 2). Commerce and Treasury officials attribute this spike in filings to the increased attention to foreign mergers and acquisitions in the aftermath of the 2006 purchase of a British company that managed terminal operations at six key U.S. ports by Dubai Ports World, a United Arab Emirates company. This trend in the number of CFIUS filings appears as if it will continue in 2007, as 29 transactions were filed as of mid-March.

**Figure 2: Number of CFIUS Notifications**



Source: The Department of the Treasury

The majority of foreign investors involved in CFIUS notifications in 2006 were from the following six countries: United Kingdom, France, Israel, Canada, Australia, and Japan. While there were no filings involving foreign investors from China during this time frame, there was one filing involving a Hong Kong entity. Other foreign investors involved in CFIUS filings include entities from Pakistan, Russia, Venezuela, and the United Arab Emirates.

#### 2006 CFIUS Reforms and Pending Legislation

Given the recent scrutiny of the effectiveness of the CFIUS process by the Congress in the aftermath of the Dubai Ports World case, the Department of the Treasury reports that CFIUS instituted the following reforms in 2006:

- Although current law requires the President to report to the Congress on transactions that receive a presidential decision, CFIUS now provides briefings to the Congress on every case reviewed by CFIUS.
- Only persons confirmed by the Senate can certify the conclusion of a CFIUS review.
- CFIUS encourages parties to transactions to pre-file before filing a formal notice.
- The Treasury Department hosts a weekly policy-level meeting to discuss all pending CFIUS cases.

- The Director of National Intelligence (DNI) was given a more formal role. Through the DNI, the intelligence community provides briefings on every transaction and participates in weekly CFIUS meetings.

In addition, the U.S. House of Representatives passed legislation in February 2007 aimed at reforming the current CFIUS process.<sup>2</sup> Treasury officials expect the Senate to take up the bill in spring 2007. Below are the main provisions of the House bill:

- Foreign government transactions. The bill requires CFIUS to conduct a 45-day national security investigation on all cases involving foreign government control unless the Secretaries of the Treasury, Homeland Security, and Commerce determine, on the basis of the 30-day review of the transaction, that it will not affect the national security of the United States.
- Designation of Vice Chairs. The bill elevates the Secretaries of Commerce and Homeland Security to the status of Vice Chairs of CFIUS and requires that they approve all transactions in addition to the Chairman of CFIUS.
- Unilateral Initiation of Reviews. The bill allows the President, CFIUS, or any member acting on behalf of CFIUS to initiate reviews of any previously reviewed or investigated transaction if any party to the transaction submitted false or misleading information or breached a mitigation agreement.
- Withdrawn Notices. The bill establishes a process for tracking transaction notices that have been withdrawn by the parties before the completion of the 30-day review or 45-day investigation by CFIUS.
- Annual Report to the Congress. CFIUS will be required to submit a report to the Congress before July 31 of each year on all reviews and investigations of transactions.

#### UPDATE OF PRIOR COMMERCE OIG WORK ON CFIUS PROCESS

In our March 2000 report on CFIUS and other matters, we raised concerns about the overall effectiveness of CFIUS' monitoring of foreign investment in the United States for national security reasons, including (1) the lack of mandatory foreign investment reporting, (2) the low number of investigations conducted on company filings, and (3) the potential conflict of interest or appearance thereof by the Treasury office charged with overseeing CFIUS because of its dual responsibilities to "promote" foreign investment as well as "prevent" such investment when it could result in the loss of sensitive technology or a critical reduction in the defense industrial base.

<sup>2</sup> H.R.556, "National Security Foreign Investment Reform and Strengthened Transparency Act of 2007."



The report also highlighted some issues involving Commerce's process for reviewing CFIUS filings, including (1) whether Commerce's lead responsibility for this program should remain in ITA, the Department's primary trade promotion agency, or be moved to BIS, the Department's primary national security agency, and (2) whether BIS' export enforcement and export licensing units should play a larger role in reviewing CFIUS filings.

To determine what actions have been taken to address these concerns, we met with various officials within ITA, including the Assistant Secretary for Market Access and Compliance, and BIS, including the Assistant Secretary for Export Administration and the director of the Office of Strategic Industries and Economic Security. We also met with the Department of the Treasury's Deputy Assistant Secretary for Investment Security and the CFIUS staff chair. In addition, we reviewed current and proposed laws, policies, and procedures related to the CFIUS process. We also reviewed 10 CFIUS cases, including one from 2005 that was reopened in 2006 based on congressional concerns with the transaction, all 7 from 2006 that went to the investigation phase, and 2 from 2007 that raised possible export control issues.

Given the limited nature of our work, we did not determine how many of the 113 filings were withdrawn and refiled with CFIUS and how well CFIUS monitors this process. We also did not review CFIUS' process for monitoring compliance with mitigation agreements.

The following two sections provide updates on the two areas of CFIUS concerns highlighted in our March 2000 report.

**A. *Update of Prior Commerce OIG Concerns Related to the Overall CFIUS Process***

**Lack of Mandatory Foreign Investment Reporting—Update**

During our recent follow-up work, both Treasury and Commerce officials informed us that the controversial and highly publicized Dubai Ports World case made U.S. and foreign entities more aware of the CFIUS process. As a result, the number of filings has increased. However, foreign investment reporting is still a voluntary process. Legislation was proposed in the National Defense Authorization Act for Fiscal Year 2000 to make such reporting to CFIUS mandatory, but the provision was deleted before passage of the bill. To date, Congress has not taken any action to make CFIUS filings mandatory. In addition, the Administration has not proposed mandatory filing. According to Commerce and Treasury officials, mandatory filing might harm U.S. open investment policy as well as overburden U.S. government resources. However, both agencies stated that even though filing with CFIUS is voluntary, it is in the best interest of the parties to an investment transaction to notify the committee because CFIUS retains the right to review any transactions not communicated to the committee, and the review could result in forced divestiture.

While we acknowledge that the number of CFIUS filings has increased, we still question whether CFIUS is capturing—in a timely manner—all relevant acquisitions and mergers, especially those involving small or medium-sized U.S. companies that manufacture or conduct research on sensitive U.S. technologies (including emerging technologies). For instance, one of the 2006 cases we reviewed during our follow-up work involved a small U.S. company that had

been acquired a year earlier without CFIUS review. It is unknown why the U.S. company did not notify CFIUS of the proposed acquisition prior to its completion. The transaction was only brought to CFIUS' attention a year after the acquisition occurred when it was highlighted by the media. Due to national security concerns, the U.S. government ultimately ordered the divestiture of the acquisition which has to be completed by December 2007. While there was no evidence in the case file to suggest national security had been compromised, reviewing such transactions after the fact increases the likelihood of this possibility.

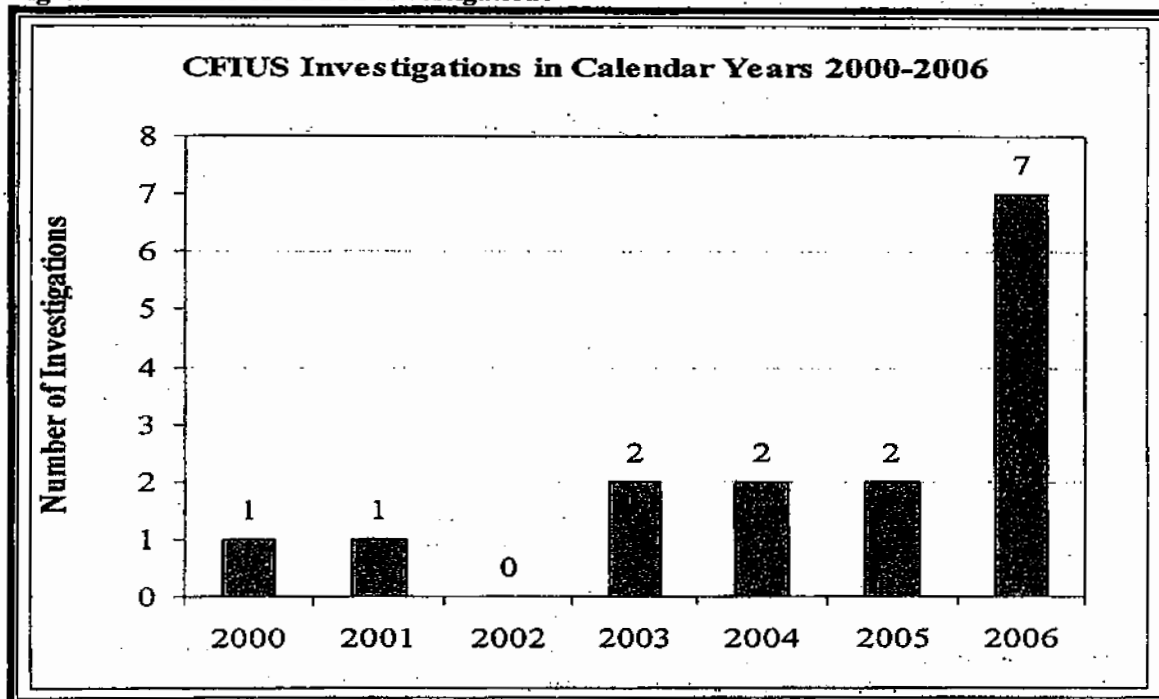
In addition, while CFIUS members are permitted to submit a notice of proposed or completed acquisition for a national security review, this does not happen very often. Specifically, the Department of the Treasury reported that it received six notifications from member agencies in 2006, including four from Commerce.

#### Low Number of Investigations—Update

The number of 45-day investigations has increased since our March 2000 report (see Figure 3). Specifically, the percentage of filings investigated increased from 1 percent in 2000 to 6 percent in 2006. Of the 113 CFIUS filings in 2006, 7 cases were escalated to the investigation phase. However, since the number of filings also increased in this time period, it is hard to determine—based on the statistics alone—what this increase in investigations really means or how significant it is given that (1) a party can withdraw its filing before it is escalated to the investigation phase (although the expectation is that the party will refile the notice if the transaction is to proceed) and (2) CFIUS can enter into a mitigation agreement with a party to deal with any potential national security concerns before being escalated to the investigation phase.

Of the seven cases escalated to investigation in 2006, only two required a presidential decision. In both cases, the President allowed the transaction to go forward. The remaining five cases were withdrawn before the investigation phase concluded and refiled later. CFIUS ultimately approved three of the five refiled transactions. In the fourth case, CFIUS required a divestiture, and the fifth transaction was abandoned by the parties involved.

Figure 3: Number of CFIUS Investigations



Source: Department of the Treasury

#### Dual Responsibilities of CFIUS Leadership—Update

In our March 2000 report, we questioned whether the dual responsibilities of Treasury's Office of International Investment, located in the Office of the Assistant Secretary of International Affairs, were incompatible. That office, which serves as the secretariat for CFIUS, is responsible for promoting foreign direct investment as well as investigating questionable foreign investment. While the lead responsibility for CFIUS continues to remain in this office, both Treasury and Commerce officials reported that CFIUS has been operating on a consensus basis for the past year. As such, any CFIUS member can bring a case to CFIUS for review as well as escalate a case for investigation. In addition, although the law requires CFIUS to provide reports to the Congress only on transactions that receive a presidential decision, Treasury officials informed us that, in the spirit of transparency, it now provides all final CFIUS results to the Congress. Therefore, our original concern about Treasury's leadership of CFIUS—based on its competing interests—appears to be mitigated due to the recent increase of checks and balances on Treasury's decision-making authority.

#### Conclusion

Even with the possible enactment of the pending CFIUS legislation, we still have concerns about the overall effectiveness of CFIUS' monitoring of foreign investments for national security reasons. Specifically, whether or not it is determined to be feasible to require mandatory reporting to CFIUS, we are concerned that the committee may not be capturing acquisitions and mergers involving small or medium-sized U.S. companies that manufacture or conduct research

on sensitive U.S. technologies, as noted earlier in our report. Also, it is not clear whether companies that withdraw their filings at various stages in the process are adequately monitored by CFIUS to ensure that a merger or acquisition that raises potential national security concerns does not continue without further review. Additionally, there does not appear to be a formal mechanism in place to monitor mitigation agreements that CFIUS members enter into with parties to a merger or acquisition.

Our March 2000 report suggested that an interagency OIG review of the CFIUS process, conducted by the OIGs from the Departments of Commerce, Defense and the Treasury, may be warranted, as a part of our responsibilities under the National Defense Authorization Act for Fiscal Year 2000, as amended. While the Inspectors General of Treasury and Defense concurred with our suggestion, other priorities prevented this review from taking place. Nevertheless, we still believe that such a review is warranted to (1) determine the scope of the problem regarding foreign investment in U.S. companies with sensitive technologies by countries and entities of concern and (2) review the overall effectiveness of CFIUS and recommend improvements, as necessary, to the way the U.S. government monitors foreign investment in these companies.

***B. Update on Closed OIG Recommendations Related to Commerce's Role in CFIUS***

**Placement of CFIUS Responsibility Within the Department—Update**

When CFIUS was created, the Department's export control functions were performed by ITA. However, in 1987 the Congress decided to split the Department's trade promotion responsibilities from its export control and enforcement functions. Thus, the Bureau of Export Administration (now BIS) was created as an independent Commerce bureau to handle the latter trade administration functions. While ITA's focus remained on trade promotion, it also retained its role as Commerce's representative on CFIUS. With the passage of the Exon-Florio provision in 1988, however, CFIUS's main focus was shifted from monitoring overall foreign investment in the United States to determining the effects on national security of foreign mergers, acquisitions, and takeovers of U.S. companies. Given the main thrust of Exon-Florio is to prevent foreign acquisitions or investments that could threaten national security, our March 2000 report questioned why the lead responsibility for CFIUS within the Department was with ITA and not BIS.

In response to our March 2000 report, ITA stated that it should retain the role as the lead organization in Commerce on CFIUS issues. In addition, it stated that ITA would continue to encourage full involvement and cooperation by all concerned units in the Department and would participate fully in efforts to seek productive ways of improving the effectiveness of CFIUS. BIS' response stated that the current Commerce mechanism for reviewing CFIUS filings is sufficient, but that it would accept the responsibility if it were transferred to it.

We still believe that BIS may be the more appropriate entity to have the lead on CFIUS within Commerce given its national security mission. However, based on our discussions with BIS and ITA officials and our limited case reviews, it appears that the current Commerce process is working well. Both ITA and BIS report that disagreements between the two entities during Commerce's decision-making process are rare. ITA officials attribute this, in part, to the fact

that it defers to BIS on any case that raises specific export control concerns. We only identified one case in which BIS and ITA officially disagreed, but the issues of concern did not involve export controls. Ultimately, the decision on Commerce's position on this case was raised to the Deputy Secretary, who made the final decision.

While we are encouraged by these recent developments, we are concerned that there are no comprehensive, written procedures outlining how the CFIUS process works in Commerce. The director of ITA's Office of Competition and Economic Analysis (OCEA) informed us that he is planning on establishing written CFIUS guidelines in the next month and distributing them to BIS, NIST, and other offices within Commerce that work on CFIUS. We also were informed that, in March 2007, BIS developed written guidance for handling of the CFIUS process within BIS. It is now appropriate that ITA, BIS, and other relevant Commerce offices work together to develop and implement written procedures outlining how the CFIUS process should work in the Department, including the roles and responsibilities of all parties involved in the process.

**Recommendation:**

We recommend that ITA work with BIS and other relevant Commerce offices to establish written procedures outlining the specific CFIUS roles and responsibilities of Commerce units and how the CFIUS process should work in Commerce to ensure continued coordination and cooperation.

**BIS' Internal Review of CFIUS Notifications—Update**

While our prior work found that the Office of Strategic Industries and Economic Security (OSIES) was conducting a fairly comprehensive review of CFIUS notifications in response to ITA's referrals, our March 2000 report raised concerns that these notifications, and in particular those involving entities from countries of concern, were not always reviewed by Export Administration's and Export Enforcement's licensing and enforcement experts. However, based on our follow-up work, we found that OSIES has greatly increased its collaboration with these components of BIS. OSIES now works more closely with licensing officers on each CFIUS filing: Every notification is sent to the appropriate licensing officer for a technical review and to determine if applicable U.S. technologies and/or commodities involved in the transaction fall under the Export Administration Regulations. The division director of OSIES also reported that in order for licensing officers to better understand what CFIUS is and to ensure that applicable CFIUS transactions are not overlooked during the export licensing process, OSIES is providing training to licensing officers on the CFIUS process.

In addition to working with licensing officers, OSIES is working more closely with export enforcement officials. Specifically, all parties associated with CFIUS filings are reportedly vetted with Export Enforcement to ensure that there are no export enforcement concerns relevant to a CFIUS case under review. We also found, based on two recent CFIUS cases we reviewed, that OSIES refers possible export control violations identified as a part of the CFIUS review process to Export Enforcement's Office of Export Enforcement (OEE). Given the 30-day CFIUS review period, OEE made these referrals a priority and was able to respond back to OSIES in a timely fashion with the recommendation that these cases could move forward in the

CFIUS process. Furthermore, it should be noted that OEE is planning to conduct outreach visits in 2007 with U.S. parties to CFIUS transactions to educate and inform them of their export control responsibilities. The director of OSIES informed us that he and/or his staff plan to accompany OEE on two of the outreach visits scheduled in April 2007.

Additionally, as noted previously, BIS has recently established written procedures that reflect the new CFIUS process within the bureau. The director of OSIES told us that this document was distributed to every analyst who is involved with CFIUS. Also, the Assistant Secretary for Export Administration was recently briefed on the newly created CFIUS written procedures.

Finally, it should be noted that in 2006 and 2007, Commerce, in particular BIS, along with several other CFIUS members, participated in negotiating two mitigation agreements with parties involved in sensitive acquisitions of U.S. companies. BIS will be responsible for monitoring the export control provisions of these agreements when they take effect in the near future. However, BIS does not have any written procedures in place that outline how it should monitor these provisions of the agreements. (As of March 30, 2007, the Director of OSIES told us that his office is currently working on a draft version of the procedures for monitoring provisions of the mitigation agreements.) To better ensure that mitigation agreements are adhered to by the parties involved, BIS should finalize and issue those procedures that will allow it to monitor and enforce the export control provisions of these agreements.

**Recommendation:**

We recommend that BIS finalize and implement written procedures that outline how it will monitor and enforce the dual-use export control provisions of mitigation agreements entered into by CFIUS.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

**SEP 28 2001**

**MEMORANDUM FOR:** Nancy J. Victory, Assistant Secretary  
for Communications and Information

Don Wynegar, Director  
Mountain Administrative Support Center

**FROM:**

*for*   
Johnnie E. Frazier

**SUBJECT:** *Table Mountain Research Site  
Needs Attention*  
Final Audit Report No. DEN-11928-1-0001

As a followup to our draft report issued August 9, 2001, the Office of Inspector General has completed a performance audit to monitor selected efficiency and effectiveness issues of the National Telecommunications and Information Administration's (NTIA) Institute for Telecommunication Sciences (ITS), located in Boulder, Colorado. We found that, of the issues reviewed, only the Table Mountain Radio Quiet Zone research site, because of health and safety concerns, rose to the level of requiring immediate management attention. NTIA and MASC generally agreed with two of our three recommendations, but they did not agree that NTIA needed additional formal authority to manage the site. Instead, NTIA and MASC stated that a section of the Department's Real Property Management Manual provides "tacit acknowledgment" of ITS's historical management of the site. Since NTIA is currently working to establish an "overarching" memorandum of understanding with other users of the site, we believe that our concerns have been substantially addressed and have revised our first recommendation. We plan to follow up on this recommendation in the future to assess its effectiveness. Our findings begin on page 3, and our recommendations appear on page 6. We have summarized NTIA and MASC's response beginning on page 6 and have included the response, excluding attachments, as Attachment 1.

We would appreciate receiving your audit action plan addressing the audit recommendations within 60 calendar days, in accordance with Department Administrative Order 213-5. The plan should be in the format specified in Exhibit 7 of the DAO. Should you have any questions regarding preparation of the audit action plan, please call me on (202) 482-4661 or contact William R. Suhre, Regional Inspector General for Audits, Denver Regional Office, at (303) 312-7650.

We appreciate the cooperation and courtesies extended to us by NTIA and MASC staff.

## INTRODUCTION

The Institute for Telecommunication Sciences, located in Boulder, Colorado, is the chief research and engineering unit of NTIA and supports such NTIA objectives as (1) promotion of advanced telecommunications and information infrastructure development in the United States, (2) enhancement of domestic competitiveness, (3) improvement of foreign trade opportunities for U.S. telecommunication firms, and (4) facilitation of more efficient and effective use of the radio spectrum.

ITS began in the 1940s as the Interservice Radio Propagation Laboratory, which later became the Central Radio Propagation Laboratory of the National Bureau of Standards. In 1965, the laboratory became part of the Environmental Science Services Administration and was renamed the Institute for Telecommunication Sciences and Aeronomy. In 1967, the telecommunications function was transferred to the newly formed Office of Telecommunications. Finally, in 1977 the Office of Telecommunications and the Office of Telecommunications Policy were merged to form NTIA. Since then, ITS has provided research and engineering support for NTIA's policy-making activities and for other federal agencies and non-federal entities on a reimbursable basis.

The Table Mountain Radio Quiet Zone research site supports ITS's research objectives and is also used by other departmental and non-departmental units. The research site comprises about 1,700 acres in a rural area approximately 11 miles north of the Boulder Laboratories, where ITS, along with units of NOAA and NIST, is located. Research facilities at the site include 14 small buildings and several antenna arrays, satellite dishes, and towers. The site was leased by the Department beginning in 1954 and was acquired by condemnation in 1961.

Although not used as extensively as it was during the 1950s and 1960s, the site is valuable for many research projects. Currently, the site has 10 users conducting ongoing research, including five NOAA units, the U.S. Geological Survey, a university, two private companies, and a non-profit organization. Many other users have completed research at the site. ITS does not currently use the site for ongoing experiments but does use it for occasional calibration of radio and laser equipment.

The site is unique because it encompasses an entire flattop mesa, which helps insulate it from interference from surrounding development. It is one of only two radio quiet zones in the country and is protected from radio interference by Colorado law, Federal Communication Commission rules and regulations, and regulations of the federal government's Interdepartment Radio Advisory Committee. The site's physical isolation and radio quiet zone status minimize interference to ongoing experiments and to the collection of atmospheric and terrestrial data. Additionally, a database of measurements collected over



many years serves as a benchmark for comparison with present day measurements that cannot be duplicated at another location.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

The Office of Inspector General conducted a performance audit to evaluate selected efficiency and effectiveness issues at ITS. Our audit began in February 2000 covering a variety of ITS issues, although we ultimately concluded that the only issue requiring immediate attention was the management of the Table Mountain Radio Quiet Zone research site.

We conducted our review at ITS, the Table Mountain site, and the Mountain Administrative Support Center (MASC). MASC, which is also located at the Boulder Laboratories, is the regional administrative support center with the jurisdiction to provide real property management services to departmental units in the region.

We reviewed applicable laws, regulations, policies, and procedures; examined selected files and records; and reviewed appropriate documentation. We found no instances of non-compliance with applicable laws and regulations.

We reviewed the adequacy of internal controls and assessed the reliability of the computer-generated data that was used in our audit. We tested the accuracy of the data and concluded that it was sufficiently reliable for use in meeting our objectives. We did not assess the overall reliability of ITS's or MASC's computer systems.

The audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and was performed under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

## **FINDINGS AND RECOMMENDATIONS**

The Table Mountain Radio Quiet Zone research site is in disrepair and has several health, safety, structural, and environmental deficiencies, which potentially threaten the site's users, nearby residents, and federal property. The site should be immediately upgraded to reduce this risk and any resulting liability for the Department. While ITS has assumed management of the site since 1977, it appears to lack the expertise to manage it effectively, whereas MASC has the expertise and the delegated authority for managing other departmental facilities in the region.

### Recent Progress Upgrading the Site

We began evaluating the Table Mountain site in April 2000 and brought to the attention of ITS and MASC management our concerns regarding the lack of progress to correct the site's physical deficiencies that were identified by MASC four years earlier. In a May 1997 report entitled *Facility Condition Survey, Table Mountain*, MASC estimated that \$359,400 was needed for repairs so that "...the facility will be in reasonable shape with regard to code compliance, safety, structural stability, electrical systems, and environmental liability."

Since last year, we found that three of the deficiencies requiring immediate action, at a relatively low cost, have been initially addressed. First, one of the buildings was heavily contaminated with mice feces, which was a health concern for occupants due to the risk of *Hantavirus* infection. MASC spent \$2,500 in August 2000 to clean up the building. Second, vegetation around the perimeter had not been maintained for a fire break. A fire could threaten the ecology of the site, which is one of the few pristine native grass sites in Colorado, endanger the lives of the users, and destroy valuable scientific instruments. In November 2000, ITS authorized a \$1,500 work order for the NIST Technical Services Division, the entity that maintains the Boulder Laboratory building, to maintain a fire break at the site. Third, in 1998 the Colorado Department of Agriculture requested that ITS control certain weeds on the site targeted for eradication, to prevent their spreading throughout eastern Colorado and into neighboring states. MASC spent \$2,900 to apply herbicides in October 2000 and May 2001 to the affected areas of the site. While these actions have dealt with some of our immediate concerns, these matters will need periodic attention to prevent these problems from recurring.

### Site Management Roles

Managing the Table Mountain site requires technical program oversight, maintenance and security, and administration. ITS and NOAA manage the technical programs by deciding who will use the site and determining whether activities conducted by existing or potential users of the site are compatible. ITS also provides the measurement methods for routine testing of radio signals at the site to ensure the lowest possible level of unwanted radio frequency energy in the area in compliance with public law.

Typically, each organizational unit that uses the site provides maintenance and security for the structure(s) used in its research activities. The U.S. Department of the Interior arranges for the maintenance of buildings used by the U.S. Geological Survey. MASC, which is a unit of NOAA, provides for the upkeep on the buildings occupied by NOAA. ITS does not currently occupy any buildings but spends about \$3,000 annually for utilities in those buildings that are not occupied or are used intermittently by various organizations. MASC estimates the annual cost for site security, road maintenance, fire break maintenance, and weed control would be approximately \$50,000.

The administrative issues associated with the site include (1) preparing environmental and safety compliance reports required by laws and regulations, (2) preparing property utilization surveys and other reports required by the General Services Administration, and (3) dealing with the public. Most of the administrative services are currently handled by MASC, which has trained real property engineers and specialists, whereas ITS's administrative staff does not have anyone trained in real property matters.

Since no single organization oversees the overall management of the site, the quality of building maintenance is inconsistent and uncoordinated, and the maintenance of common areas and unused facilities and overall security is neglected. For example, ITS halted its plans for a site-wide cleanup last spring when it learned that NOAA had also planned a cleanup. We also learned that departmental users of the site met in May 2001 for a one-time meeting to coordinate activities at the site.

#### Ownership and Management Responsibility

To address these problems, we examined the question of which entity owns the Table Mountain site and which entity is responsible for managing the site. We found that although the property is clearly owned by the U.S. Government, no legal document exists that indicates that any particular agency of the government owns the site or is responsible for its management. According to the U.S. Attorney General's 1963 "examination...of the title evidence and the transcript of record in the condemnation proceeding(s)...valid title to the...land...is vested in the United States of America." The proceedings state that the property is "...taken for use of the United States in connection with the construction and maintenance of a plant and facilities for radio propagation by the National Bureau of Standards, Department of Commerce...."

The Federal Property Management Regulations, Section 101-18.104.3 delegates real property management authority to the Department of Commerce for "Laboratories for testing materials, classified or ordnance devices, calibration of instruments, and atmospheric and oceanic research." This authority is delegated to the Assistant Secretary for Administration in Department Organization Order (DOO) 10-5 and redelegated in DOO 20-1 to the Director for Administrative Services. However, we found no delegated real property management authority in either DOO 10-10 or 25-7 that would establish the scope of real property management authority for NTIA and ITS.

The regional administrative support centers, created in the early 1980s, have been delegated real property management authority in Department Administrative Order (DAO) 217-1, Amendment 2. MASC was created in 1983 to consolidate administrative services, including real property management, needed by departmental units in the region. Typically, departmental units enter into agreements with regional support centers to provide real property management services for their research sites on a reimbursable basis. However, the

departmental unit still retains financial and decision-making authority for managing the site so that the technical and/or scientific needs of the site are addressed. The recent property management services provided by MASC have been mostly funded by the NOAA units that use the site and primarily benefit the facilities used by those units.

### Conclusion

The research site is a valuable resource that should, as appropriate, be upgraded and properly managed to reduce the Department's risk of loss due to health, safety, structural, and environmental deficiencies and to provide current and future users with a facility that enables high quality research activities.

### Recommendations

We recommend that the Assistant Secretary for Communications and Information coordinate with the Director of the Mountain Administrative Support Center to:

1. Establish a formal arrangement to clearly designate responsibility for overall management and the various aspects of managing the Table Mountain site.
2. Ensure that recent progress to improve the site continues and actions are taken to prevent the problems from recurring.
3. Ensure that ITS and MASC continue to periodically meet with all users to coordinate activities at the site.

### NTIA and MASC Response

NTIA and MASC believe that the Department's Real Property Management Manual provides sufficient authority for ITS to continue the real property management responsibilities at the Table Mountain site. A section of the manual delegates to the Assistant Secretary for Communications and Information the authority to "grant easements and other rights of access to real property." NTIA and MASC believe that the language provides "tacit acknowledgment" of ITS's historical management of the Table Mountain site. MASC will continue to provide administrative support services required for the site including recommending facility improvements. Furthermore, NTIA, NOAA, and the National Institute of Standards and Technology (NIST) are close to finalizing a memorandum of understanding (MOU) that will enable each agency that services the site to obtain reimbursement from the users of the site.

NTIA and MASC agreed with our second and third recommendations and are pursuing a multi-year effort to provide for basic maintenance and improvement of the site, such as

applying for special funding and establishing an MOU for cross-agency reimbursement, and to coordinate activities with all users.

#### OIG Comments

NTIA and MASC's response included a citation to *Real Property Management Manual*, section 2.103(a) which states, "Easements: Pursuant to the authority vested in the ASA [Assistant Secretary for Administration]...the Assistant Secretary for Communication and Information...[is] hereby delegated the authority of the ASA...to grant easements and other rights of access to real property under their respective control or jurisdiction..." The citation refers to the granting of easements and other rights of access--not to responsibilities for real property management. Therefore, while this language may indicate "tacit acknowledgment" of NTIA's role at the ITS site, we still do not believe that it provides clear and convincing authority for ITS to continue to manage the Table Mountain site.

Based on the response to our draft report, it appears that management of the site will be shared by ITS, MASC, NIST, and NOAA and governed by the draft MOU. Because Section 2.004 of the manual enables MASC to delegate its responsibility for real property management, we accept this arrangement. We therefore accept NTIA and MASC's planned actions to address our concerns regarding the site and have modified our first recommendation to reflect our belief that a formal arrangement is needed to clearly designate responsibility for overall management and the various aspects of managing the Table Mountain site. NTIA and MASC's audit action plan should include a copy of the MOU so that we may assess whether it is consistent with the recommendation. We plan to follow up on this recommendation, in the future, to assess the effectiveness of the actions taken.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Communications**  
**and Information**  
Washington, D.C. 20230

SEP 7 2001



MEMORANDUM FOR: Larry B. Gross  
Acting Assistant Inspector General for Auditing

FROM: Nancy J. Victory *NJ Victory*  
Assistant Secretary for Communications and Information

Don Wynegar *Don Wynegar*  
Director, Mountain Administrative Support Center

SUBJECT: Table Mountain Research Site Needs Attention  
Draft Audit Report No. DEN-11928

Thank you for the opportunity to respond to your Draft Audit Report Table Mountain Research Site Needs Attention, No. DEN-11928/August 2001. We agree that the Table Mountain National Radio Quiet Zone, and its underlying real property, is a valuable national asset of enormous importance to the country as a research and experimentation site. We further agree that the site must be upgraded and properly maintained to reduce safety and health concerns and to assure that all users have continuing access to a high quality research facility. The responses of the National Telecommunications and Information Administration (NTIA) and the Mountain Administrative Support Center (MASC) to the three (3) recommendations in your report are set out below.

Recommendation 1: Establish MASC as the lead agency to oversee overall site management, or establish some other formal arrangement so that property management responsibilities are clearly designated. If NTIA is designated the lead agency, the basis for NTIA's authority to manage real property should be cited.

Response: NTIA and NOAA/MASC agree that property management responsibilities for Table Mountain have been clearly designated. The *Real Property Management Manual* provides the single authoritative reference for the Department's real property management policies and procedures and provides the delegated authority for NTIA's management of the Table Mountain site.<sup>1</sup> This is supported by the *Real Property Management Manual*, Section 2.103, Specific

---

<sup>1</sup> Department Administrative Order (DAO) 217-1 (effective Jan. 3, 1986) authorized the development, issuance and maintenance of the Department of Commerce *Real Property Management Manual*. DAO 217-1 also provided that the Manual has the status and effect of a DAO and serves as the single authoritative Department real property management reference. In an effort to streamline the Department's administration, the Department issued DAO 200-0 in 1994 to consolidate the listing of the Department's handbooks and manuals. DAO 200-0 provided that each of the handbooks and manuals authorized by DAO 200-0 would have the status and effect of a DAO, including the *Real Property Management Manual*. Section 5 of

Delegations of Authority, which delegates to the Assistant Secretary for Communications and Information Administration (ASCI) the authority to "grant easements and other rights of access to real property" under its control or jurisdiction. The section further provides that the ASCI may redelegate this authority only to the Director of the Institute for Telecommunication Sciences (NTIA/ITS). The only real property under the jurisdiction or control of NTIA is the Table Mountain site which NTIA/ITS has historically managed on the agency's behalf. The redelegation language is a tacit acknowledgment of this fact. NTIA and MASC agree that this Manual provides sufficient authority for NTIA to continue the real property management responsibilities at the Table Mountain site. In accordance with the Economy Act, and as provided in the *Real Property Management Manual*, MASC provides the administrative support services required for the site, i.e., real estate reporting, site condition surveys, recommendations for facility improvements, safety reviews, and other miscellaneous support services associated with the site.

NTIA, NOAA, and the National Institute of Standards and Technology (NIST) are working together to establish an overarching Memorandum of Understanding (MOU) through which these agencies will reimburse each other for the respective services provided to each other in Boulder. The draft MOU specifically includes a provision that will reimburse NTIA/ITS for services to NOAA and NIST for the technical management, physical maintenance, and administrative services related to the Table Mountain site. This agreement has received clearance from the Department's Assistant General Counsel for Administration and is now in the final clearance process within each of the affected agencies.

Recommendation 2: Ensure that recent progress to improve the site continues and actions are taken to prevent the problems from recurring.

Response: NTIA intends to continue its multi-year effort to provide for basic maintenance and improvement of the Table Mountain site. MASC will perform site reviews to determine what basic maintenance and improvements are required and supply the information to NTIA or NOAA, as appropriate.

Moreover, as discussed more fully in response to Recommendation 1, NTIA, NIST and NOAA are in the process of establishing an MOU through which these agencies will reimburse each other for services rendered, including NTIA's services related to the Table Mountain site. This

---

DAO 200-0 also provided a list of the other DAOs superceded by DAO 200-0, including DAO 217-1. (DAO 200-0 was revised in 1996.) Thus, the *Real Property Management Manual* is now the definitive document setting forth department-wide policy and procedures for real property management by Departmental personnel. For ease of reference, attached please find copies of DAO 217-1 (effective Jan. 3, 1986), DAO 200-0 (effective June 29, 1994), DAO 200-0 (effective Dec. 24, 1996); and Sections 1.000 - 1.004, 2.103 - 2.104 of the *Real Property Management Manual*.

agreement, when put in place, will also provide a strong basis for the reimbursement of basic maintenance costs from users of Table Mountain.

In addition, NTIA has requested a budget initiative in FY 2003 to accomplish comprehensive clean-up, modernization, and maintenance of the Table Mountain field site. The initiative has been approved by the Department and will be sent to the Office of Management and Budget for review on or about September 10, 2001. If approved and funded in FY 2003, we believe this initiative will resolve the comprehensive clean-up and maintenance needs highlighted in your report, and allow for necessary upgrade of the facilities for much needed research by all of the Federal agencies using the site. Please note that information regarding the Department's ongoing FY 2003 budget process is not public information and we would ask the Office of the Inspector General to treat it accordingly.

MASC will continue to work with NOAA in pursuing NOAA Capital Improvement Program (CIP) funding for its facilities at the site. In the upcoming FY 2002 CIP meeting, MASC will present to NOAA management project requests for three of the NOAA occupied buildings at Table Mountain.

Recommendation 3: Ensure that ITS and MASC continue to periodically meet with all users to coordinate activities at the site.

Response: NTIA/ITS is continuing its efforts with NOAA/MASC and other Commerce agencies having an interest in Table Mountain to more effectively coordinate activities at the site. Indeed, Table Mountain is often a main agenda topic at the regularly scheduled Boulder Labs Board of Directors (BOD) meetings, where items of major interest, both research and administrative, affecting all Boulder agencies are discussed and consensus decisions are made. We plan to continue addressing Table Mountain topics in that venue.

NTIA/ITS has also initiated an Ad Hoc Committee on Table Mountain, partnering with NOAA and NIST, to address critical day-to-day issues affecting the site, such as site clean-up and basic maintenance requirements. The first meeting, held in May 2001, resulted in a plan for the step-by-step clean-up of the grounds. These efforts will continue as we make progress toward the more comprehensive and coordinated clean-up of the site planned to begin in FY 2003, with approval of our formal budget request.

**Attachments:**

DAO 217-1 (effective Jan. 3, 1986)  
DAO 200-0 (effective June 29, 1994)  
DAO 200-0 (effective Dec. 24, 1996);  
Sections 1.000 - 1.004, *Real Property Management Manual*  
Sections 2.103 - 2.104, *Real Property Management Manual*



***U.S. DEPARTMENT OF COMMERCE***  
***Office of Inspector General***

---



***Bureau of Export Administration***

***BXS Needs to Strengthen  
Its ECASS Modernization Efforts  
To Ensure Long-Term Success of the Project***

*Final Inspection Report No. IPE-14270/February 2002*

**FOR PUBLIC RELEASE**

*Office of Inspections and Program Evaluations*





**UNITED STATES DEPARTMENT OF COMM**  
**The Inspector General**  
Washington, DC 20230

February 12, 2002

**MEMORANDUM FOR:** Kenneth I. Juster  
Under Secretary for Export Administration

**FROM:** Johnnie E. Frazier

**SUBJECT:** Final Inspection Report: *BXA Needs to Strengthen its  
ECASS Modernization Efforts to Ensure Long-Term  
Success of the Project (IPE-14270)*

As a follow up to our December 21, 2001, draft report, attached is a final copy of the third report required by the National Defense Authorization Act for Fiscal Year 2000. As you know, this legislation mandates that by March 30 of each year through 2007, we issue a report to the Congress, in conjunction with the Offices of Inspectors General (OIG) at the Departments of Defense, Energy, State, and the Treasury, on the policies and procedures of the U.S. government with respect to the export of technologies and technical information to countries and entities of concern. This third report focuses on BXA's efforts to modernize its dual-use export licensing system, including whether BXA has considered the feasibility of developing a single federal dual-use export licensing system or other alternatives. The report includes comments from your January 22, 2002, written response to our draft report. A copy of your response is included as an appendix to this report. This report will also be issued as part of an interagency OIG report on federal automated export licensing systems.

We are pleased that you are generally in agreement with many of the recommendations we made to help improve the dual-use export licensing automated systems. However, we want to emphasize that this project will need dedicated resources over the next several years in order for it to be successfully completed by fiscal year 2006. In addition, as the agency charged with administering the dual-use export control process, we believe that it is especially important for BXA to better coordinate its ECASS redesign efforts with the interagency export licensing community. After carefully considering your response to our draft report, we have made some adjustments in our final report. We request that you provide us with an action plan addressing the recommendations in our report within 60 calendar days.

We thank you and your staff for the assistance and courtesies extended to us during our evaluation. If you have any questions about our report or the requested action plan, please contact me at (202) 482-4661, or Jill Gross, Assistant Inspector General for Inspections and Program Evaluations, at (202) 482-2754.

Attachment

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION .....	1
OBJECTIVES, SCOPE, AND METHODOLOGY .....	2
BACKGROUND .....	3
FINDINGS AND CONCLUSIONS .....	9
I. BXA Has Made Progress on ECASS 2000+ Project .....	9
A. Appointing an ECASS 2000+ project manager brought direction to the redesign effort .....	9
B. Exporters will soon be able to submit all license applications and supporting documentation on-line .....	10
C. BXA has selected software for its new investigative tracking system .....	11
D. BXA has begun linking strategic planning, budgeting, and IT planning .....	12
II. BXA Needs Better Planning to Ensure Long-Term Success of the Project .....	13
A. BXA's initial business process reengineering efforts were incomplete .....	13
B. BXA needs to update its cost estimates .....	16
C. Some ECASS 2000+ requirements need to be validated and specified .....	18
1. User validation is needed for licensing subsystem .....	18
2. IT security requirements need to be specified and documented .....	21
III. BXA Needs to Strengthen its Modernization Effort by Implementing Established IT Management Best Practices .....	25
IV. Interagency Cooperation on Planning, Design, and Development Has Been Mixed .....	29
RECOMMENDATIONS .....	34
APPENDIXES	
A. Status of 1999 Internal Control Recommendations .....	36
B. List of Acronyms .....	42
C. Agency Response .....	43

## EXECUTIVE SUMMARY

The House and Senate Armed Services Committees, through the National Defense Authorization Act for Fiscal Year 2000, directed the Inspectors General of the Departments of Commerce, Defense, Energy, and State, in consultation with the Director of Central Intelligence and the Director of the Federal Bureau of Investigation, to assess the adequacy of export controls and counterintelligence measures to prevent the acquisition of militarily sensitive U.S. technology and technical information by countries and entities of concern.<sup>1</sup> The legislation mandates that the Inspectors General report to the Congress by March 30 of each year until 2007.

For 2002, the OIGs agreed to conduct an interagency review of the various automated export licensing systems maintained by the federal licensing agencies—to determine how the systems interact and whether it is feasible to develop a single federal automated export licensing network or other alternatives. Each OIG also looked at its own agency's efforts to modernize its export licensing system. As such, our overall objective was to assess BXA's efforts to modernize its Export Control Automated Support System (ECASS). In particular, we sought to determine whether:

- ❖ BXA adequately considered business process changes and appropriate resources for the life cycle of the project.
- ❖ BXA had an infrastructure in place to monitor project costs, schedule, and deliverables.
- ❖ BXA's system design schedule was realistic, achievable, and on time.
- ❖ BXA implemented previous OIG recommendations pertaining to the modernization of the export licensing system and other internal control issues (see Appendix A).

Based on our evaluation, we are pleased to note that BXA has made progress in its redesign effort. However, we want to emphasize that for the project to be successful, it will need dedicated resources and continuous oversight by BXA management and the Department. Our specific observations follow:

### **BXA Has Made Progress on ECASS 2000+ Project**

We identified several areas where BXA has made progress on its ECASS 2000+ project. First, BXA's appointment of a project manager in March 2000 has brought direction and stability to a redesign effort that had lacked adequate leadership from early 1998 to March 2000. Second,

---

<sup>1</sup>Public Law 106-65, October 5, 1999.

BXA and the U.S. Department of Defense's USXPORTS<sup>2</sup> office are developing a "front-end" licensing subsystem, known as SNAP/ESD,<sup>3</sup> that will allow exporters to submit on-line, for the first time, all types of license applications as well as the corresponding supporting documentation. Third, BXA selected software in August 2001 for its new Export Enforcement Investigative Tracking System, scheduled to be implemented in June 2002. Fourth, during its fiscal year 2003 budget planning cycle, BXA established a Capital Planning Team to coordinate its strategic planning, annual budgeting, and information technology functions (see page 9).

### **BXA Needs Better Planning to Ensure Long-Term Success of the Project**

As BXA completes and implements its new ECASS 2000+ system over the next several years, thorough planning will be key to the project's long-term success. However, we found BXA could improve its planning of the ECASS 2000+ project in several areas. First, although BXA's 1998 business process reengineering study was clearly valuable in terms of defining and redesigning BXA's key business processes, we found that it was (1) too narrow in scope and (2) not adequately addressed by BXA management. Second, we found that BXA is redesigning its current ECASS system based on a cost-benefit analysis that is outdated both in terms of costs and proposed requirement changes. In addition, BXA recently increased its baseline for ECASS 2000+ from \$6 million in 1998 to \$7.5 million in 2001 without preparing adequate cost estimates. As a result, BXA does not know (1) what funding levels are needed or (2) whether the \$7.5 million will be sufficient to complete ECASS 2000+ by fiscal year 2006. Third, we determined that not all of the ECASS 2000+ requirements have been adequately specified. Specifically, we found (1) minimal user involvement in preparing requirements for the licensing subsystem and (2) the information technology security requirements had not been specified (see page 13).

### **BXA Needs to Strengthen its Modernization Effort by Implementing Established IT Management Best Practices**

While the ECASS 2000+ project officially began in March 2000, BXA still has not completed key system management processes and documentation needed to better manage the redesign effort. As of September 30, 2001, the ECASS 2000+ project lacked adequate management tools, including (1) a configuration management process, (2) a risk management process, (3) a software acquisition training program for its project team members, (4) a project management plan, and (5) target architecture. These are requisite management tools for systems development, as identified by the Office of Management and Budget's Chief Information Officers Council, the

---

<sup>2</sup>USXPORTS is an interagency program office established by the Department of Defense to modernize the interagency export licensing systems.

<sup>3</sup>SNAP/ESD is the Simplified Network Application Processing (SNAP) system and the Electronic Support Documentation (ESD) system.

General Accounting Office, and the Department of Commerce's Office of Chief Information Officer. The ECASS 2000+ project manager acknowledges that these management tools need to be instituted but informed us that the lack of resources dedicated to this project have made it difficult to manage and oversee the redesign effort and perform the needed functions in a timely manner (see page 25).

### **Interagency Cooperation on Planning, Design, and Development Has Been Mixed**

While our 1999 export licensing report<sup>4</sup> recognized the need for an ECASS replacement, it also raised concerns about the multiple and distinct automation efforts underway at that time by the various export licensing agencies. At that time, we recommended that BXA coordinate its system development efforts with the other export licensing agencies, to maximize efficiencies and savings as well as acquire a more integrated licensing system. Since then, BXA has participated in and coordinated with some interagency modernization efforts. However, it has not involved the other licensing agencies in its own redesign effort beyond SNAP/ESD. In addition, we are concerned that BXA may not adequately consider other system alternatives for its license processing needs beyond enhancing the interfaces with the existing licensing systems (see page 29).

On page 34, we offer recommendations to the Under Secretary for Export Administration to address the concerns raised in this report.

---

In BXA's January 22, 2002, written response to our draft report, the Under Secretary for Export Administration generally agreed with most of our recommendations. BXA's response outlined additional actions taken since the conclusion of our review that demonstrate its commitment to ensure the long-term success of its redesign effort. However, we want to emphasize that this project will need dedicated resources over the next several years in order for the project to be successfully completed by fiscal year 2006. In addition, we want to reiterate the need for BXA to better coordinate its ECASS redesign efforts with the interagency export licensing community.

To address BXA's comments, we have made changes to the report, where necessary. BXA's response has been included as Appendix C to this report.

---

<sup>4</sup>*Improvements Are Needed to Meet the Export Licensing Requirements of the 21<sup>st</sup> Century*, U.S. Department of Commerce Office of Inspector General, IPE-11488, June 1999.

## INTRODUCTION

The Inspectors General of the Departments of Commerce, Defense, Energy, State and the Treasury, in consultation with the Director of Central Intelligence and the Director of the Federal Bureau of Investigation, are required by the National Defense Authorization Act for Fiscal Year 2000 to conduct an eight-year assessment of the adequacy of current export controls and counterintelligence measures to prevent the acquisition of sensitive U.S. technology and technical information by countries and entities of concern.

The above legislation mandates that the Inspectors General report to the Congress no later than March 30 of each year, until 2007, on the status of efforts to maintain and improve export controls. To comply with the act's 2000 requirement, each OIG reviewed certain aspects of its agency's export controls and counterintelligence measures and reported on its findings. The result was two interagency reports highlighting crosscutting issues.<sup>5</sup> Our report focused on three activities that the Commerce Department, principally through the Bureau of Export Administration, carries out or participates in to help prevent the illicit transfer of sensitive technology. Those activities include (1) deemed export controls,<sup>6</sup> (2) the Visa Application Review Program, and (3) the Committee on Foreign Investment in the United States.<sup>7</sup>

To meet the act's 2001 requirement, the OIGs conducted an interagency review of the Commerce Control List and the U.S. Munitions List.<sup>8</sup> This review looked at BXA's policies and procedures for the design, maintenance, and application of the Commerce Control List.<sup>9</sup> For 2002, the OIGs agreed to conduct an interagency review of the various automated export licensing systems maintained by the federal licensing agencies to determine how the systems interact and whether it

---

<sup>5</sup>*Interagency Review of the Export Licensing Process for Foreign National Visitors*, conducted by the Offices of Inspector General at the U.S. Departments of Commerce, Defense, Energy, and State, D-2000-109, March 2000, and *Interagency Inspector General Assessment of Measures to Protect Against the Illicit Transfer of Sensitive Technology*, conducted by the Offices of Inspector General at the U.S. Departments of Commerce, Defense, Energy, State, and the Treasury, and the Central Intelligence Agency, 00-OIR-06, March 2000.

<sup>6</sup>According to the Export Administration Regulations, any release to a foreign national of technology or software subject to the regulations is deemed to be an export to the home country of the foreign national.

<sup>7</sup>*Improvements Are Needed to Programs Designed to Protect Against the Transfer of Sensitive Technologies to Countries of Concern*, U.S. Department of Commerce Office of Inspector General, IPE-12454-1, March 2000.

<sup>8</sup>*Interagency Review of the Commerce Control List and the U.S. Munitions List*, conducted by the Offices of Inspector General at the U.S. Departments of Commerce, Defense, Energy, and State, Report No. D-2001-092, March 2001.

<sup>9</sup>*Management of the Commerce Control List and Related Processes Should Be Improved*, U.S. Department of Commerce Office of Inspector General, IPE-13744, March 2001.

is feasible to develop a single federal automated export licensing network or other alternatives. We conducted a program evaluation that focused on BXA's efforts to modernize its aging Export Control Automated Support System (ECASS).

Program evaluations are special reviews that the OIG undertakes to give agency managers timely information about operations, including current and foreseeable problems. By highlighting problems, the OIG hopes to help managers move quickly to address them and to avoid similar problems in the future. The evaluations are also conducted to encourage effective, efficient, and economical operations and to detect and prevent fraud, waste, and abuse. Program evaluations may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere.

We conducted our evaluation from April 18 through September 30, 2001. This evaluation was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency, and was performed under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended. At the conclusion of the evaluation, we discussed our findings and conclusions with the Under Secretary for Export Administration and other key BXA and Commerce officials.

### OBJECTIVES, SCOPE, AND METHODOLOGY

The overall objective of our program evaluation was to assess BXA's efforts to modernize its export licensing system for dual-use commodities (goods and technologies determined to have both civilian and military use). The scope of our evaluation included resolving whether BXA had considered the feasibility of developing a single federal dual-use export licensing system or other alternatives. In particular, we sought to determine whether BXA:

- ❖ adequately planned for the redesign effort, including whether it properly considered business process changes and appropriate resources for the life of the project;
- ❖ had an infrastructure in place to monitor project costs, schedule, and deliverables;
- ❖ developed a system design schedule that was realistic, achievable, and being met; and
- ❖ implemented previous OIG recommendations pertaining to the replacement of the export licensing system and other automation issues.

To coordinate the review of interagency issues and determine the work to be performed by each OIG team, the five OIGs formed an interagency working group and held monthly meetings



during the review. Similar to the approach adopted for last year's reporting requirement, the five OIGs decided that each would issue a report on the findings of its agency review. In addition, all five would contribute to and approve a consolidated report on any crosscutting issues, including an assessment of the U.S. Export Systems (USXPORTS) Interagency Program Management Office, a Defense program established in May 2000 to modernize the interagency export licensing systems.

Our review methodology included interviews with various BXA officials, including senior managers, licensing and enforcement officials, and BXA contractors. We also spoke with officials from the Departments of Defense, Energy, Justice, State, and the Treasury, as well as the Office of Management and Budget (OMB) and the General Accounting Office (GAO). In addition, we met with staff from the Department's Office of Chief Information Officer (CIO), Office of Budget, Office of the Secretary, and Information Technology (IT) Enterprise Architecture Affinity Group.<sup>10</sup> We also reviewed ECASS 2000+ and USXPORTS documents available prior to September 30, 2001. Furthermore, we reviewed departmental, GAO, OMB, and congressional guidance on implementing and managing system development efforts.

Finally, we followed up on ECASS internal control recommendations made in our 1999 report<sup>11</sup> on the export licensing process (see Appendix A).

## BACKGROUND

The United States controls the export of dual-use commodities for national security, foreign policy, and nonproliferation reasons under the authority of several different laws. The primary legislative authority for controlling the export of dual-use commodities is the Export Administration Act of 1979, as amended.<sup>12</sup> Under the act, BXA administers the Export Administration Regulations by developing export control policies, issuing export licenses, and enforcing the laws and regulations for dual-use exports.

---

<sup>10</sup>The IT Enterprise Architecture Affinity Group was established to oversee all systems architecture plans by Commerce agencies.

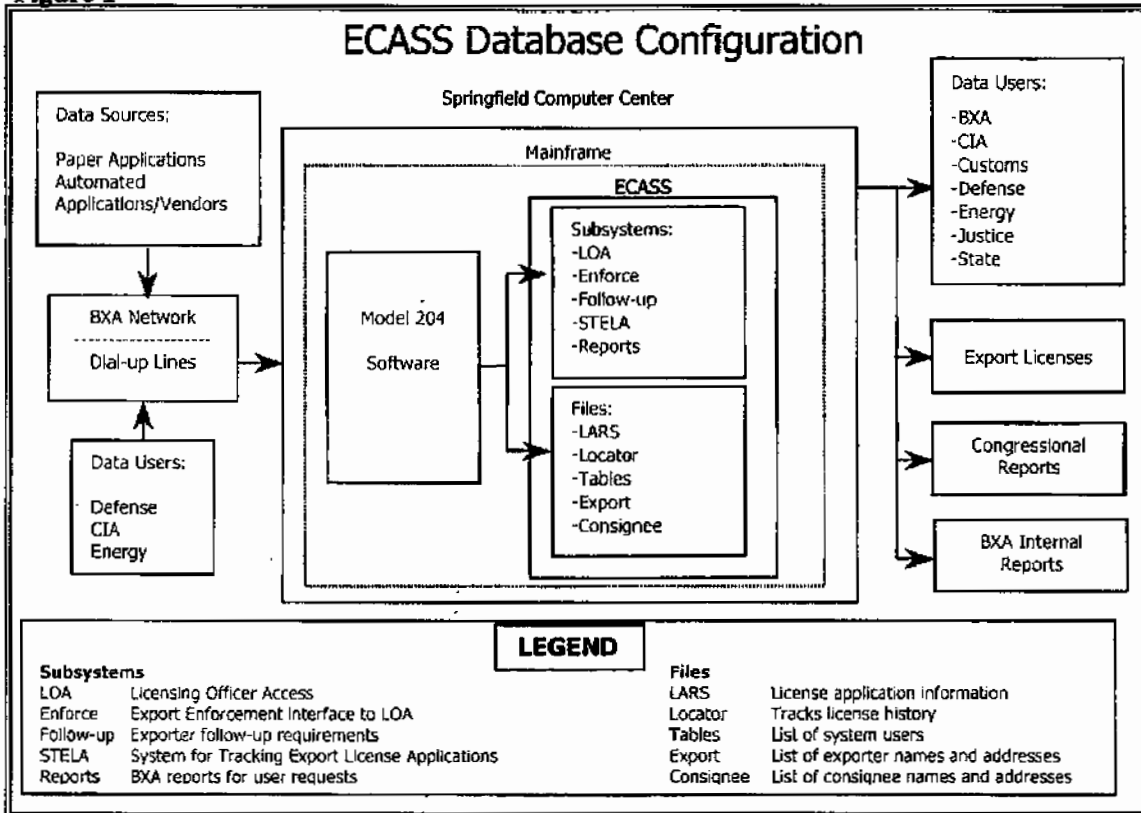
<sup>11</sup>*Improvements Are Needed to Meet the Export Licensing Requirements of the 21<sup>st</sup> Century*, U.S. Department of Commerce Office of Inspector General, IPE-11488, June 1999.

<sup>12</sup>Although the act last expired on August 20, 2001, the President has extended existing export regulations under Executive Order 13222, dated August 17, 2001, invoking emergency authority contained in the International Emergency Economics Powers Act.

## BXA's Automated Export Licensing System

BXA developed ECASS in 1984 to expedite the license approval process and better serve the U.S. exporter. ECASS is a large database designed to process, store, and transmit dual-use export licensing information. It is housed on a mainframe at the Commerce computer center in Springfield, Virginia. ECASS is an unclassified system supporting more than 600 users, including BXA headquarters and field offices; the CIA; and the Departments of Defense, Energy, Justice, State, and the Treasury. (See Figure 1.) During its lifetime, ECASS has been upgraded to permit manual, electronic, and optical character recognition data entry of license applications and commodity classification requests.

Figure 1



Source: Office of the Chief Information Officer, Bureau of Export Administration.

### **Automated Interfaces between ECASS and the Interagency Export Licensing Community**

On December 5, 1995, the President issued Executive Order 12981, in response to the need for more transparency in the dual-use export license process. Specifically, it authorizes the Departments of Defense, Energy, and State to review any license application submitted to the Department of Commerce under the Export Administration Act. In addition, the Executive Order authorizes the Department of Justice to review any export license applications pertaining to encryption items.

Both State and Justice have direct access to the ECASS system and use it to process license applications referred to them. However, because Defense and Energy have classified systems, ECASS's export license information is sent to these agencies via dial-up lines to stand-alone personal computers. The information is then put on a disk and uploaded to their respective classified systems, thereby ensuring the integrity of their systems.

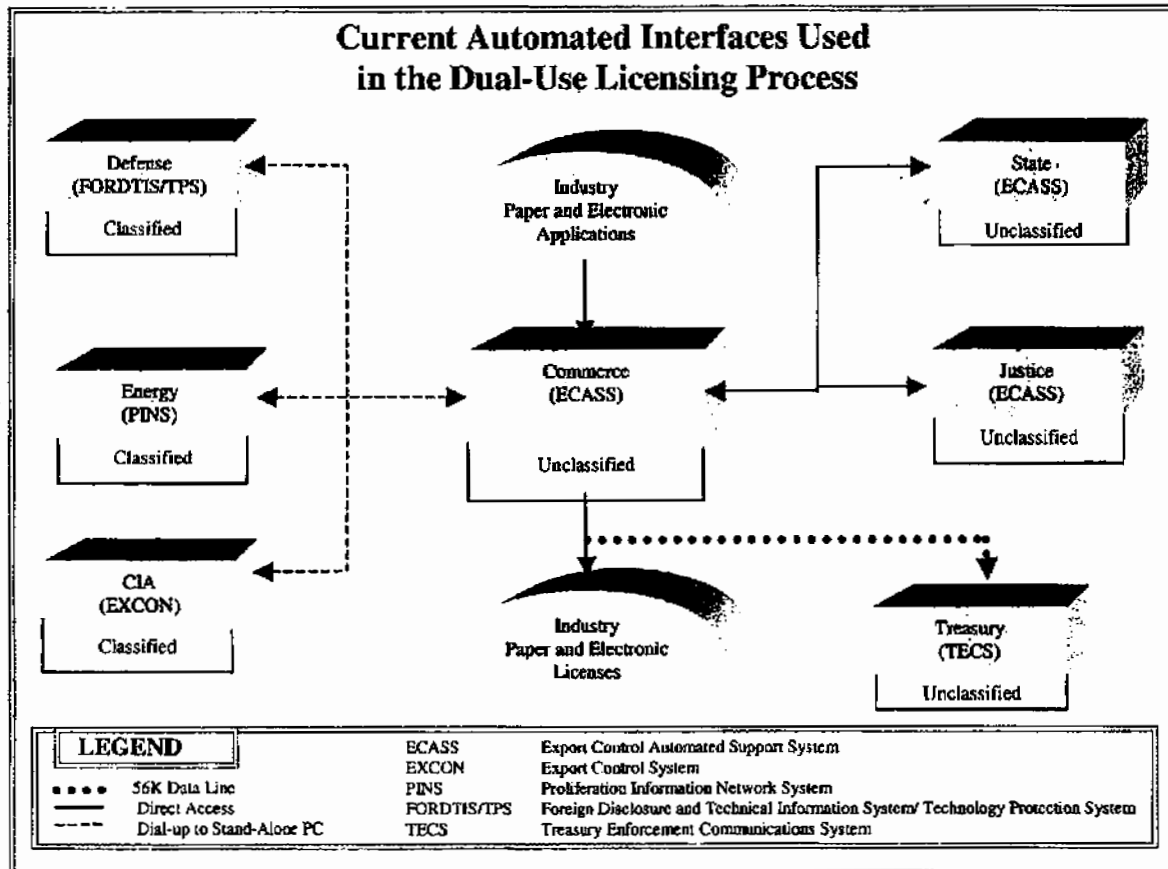
BXA also sends certain license applications to the CIA's Weapons Intelligence, Nonproliferation, Arms Control group for an end user review. Like Defense and Energy, this system is also classified and export license data is sent via a dial-up line to a CIA stand-alone computer.

Finally, BXA electronically transmits validated licensing information (for cases approved, denied, or returned without action) over a dedicated 56K data line to the Department of the Treasury's U.S. Customs Service on a daily basis. The data is then entered into the Customs Service's Treasury Enforcement Communications Systems (TECS) database.<sup>13</sup> Figure 2 identifies the agencies involved in the export licensing process and the interfaces used to transmit data back and forth.

---

<sup>13</sup>TECS was created to provide multi-agency access to a common database of enforcement data supplied by various law enforcement agencies.

Figure 2



Source: Commerce Office of Inspector General.

### ECASS Limitations

During its lifetime, ECASS has been upgraded to permit manual, electronic, and optical character recognition data entry of export and re-export license applications, commodity classifications, special comprehensive and deemed export licenses, and agriculture license exception notices. However, our June 1999 export licensing report identified many reasons why ECASS is not an effective system for the current era of license processing. Those limitations still exist. For example:

- ❖ **ECASS has limited query capability.** As such, it is difficult for licensing officers to obtain historical information on a commodity, consignee, or end user necessary to make the most informed licensing decision.
- ❖ **ECASS has limited text capability.** Specifically, it does not allow licensing officers to incorporate detailed text into the license record.
- ❖ **ECASS has no modern interfaces.** Licensing officers must exit the database every time they want to use any applications such as word processing.
- ❖ **ECASS lacks on-line access to exporter technical specifications.** Licensing officers at both BXA and referral agencies cannot review exporter technical specifications on-line through ECASS. Therefore, BXA must make copies and distribute the technical specifications as hard copy to the applicable referral agencies, a time-consuming task.
- ❖ **ECASS has limited access to outside databases.** ECASS does not allow its users to obtain information from outside databases, such as Dun and Bradstreet, and directly input the information into a license application file. Licensing officers and supervisors must obtain information outside of ECASS and then "cut and paste" information into the system.

#### **Prior OIG Recommendations to Improve Interfaces Among the Various Licensing Systems**

We issued two prior OIG reports recommending improvements to ECASS and its interfaces with the referral agencies' licensing systems. First, in our 1993 special interagency OIG report on the export licensing process,<sup>14</sup> we determined that officials at the Departments of Defense, Energy, and State needed to develop procedures to reconcile each agency's database information contained in ECASS. We also recommended that BXA establish an interagency working group, including Defense, Energy, and State, to determine the need for, the feasibility of, and the benefits to be derived from the expanded use of ECASS for dual-use export licensing information. At that time, all four agencies agreed that all database records should be consistent and that a working group should be established.

However, our 1999 report on the export licensing process found that while the export licensing process was working reasonably well, the agency automation systems lagged behind. Furthermore, we found that the export licensing agencies were not coordinating their systems

---

<sup>14</sup>The Federal Government's Export Licensing Processes for Munitions and Dual-Use Commodities, conducted by the Offices of Inspector General at the U.S. Departments of Commerce, Defense, Energy, and State, September 1993.

development efforts with each other. At that time, we recommended that BXA coordinate its system development efforts with the other licensing agencies and again encourage those agencies to establish an interagency steering committee to review the automation portion of the export licensing process, from coordinating common system architecture requirements to determining how interagency resources could be used to fund and implement a new system.

Since that time, BXA has made some progress in its redesign of ECASS (see Chapter I, page 9, for details on BXA's efforts). Furthermore, in an effort to correct the deficiencies associated with the current export licensing systems, Defense established the USXPORTS Interagency Program Management Office in May 2000. USXPORTS's mission is to:

“...modernize the export control process through easy and timely access to pertinent export data electronically among participating agencies. This includes enhancing network systems and the protection of data across agencies.”<sup>15</sup>

Defense allocated \$30 million over a three-year period for USXPORTS to accomplish its mission. An assessment of the USXPORTS office will be incorporated into a consolidated interagency OIG report regarding the various automated export licensing systems. This report will be issued in March 2002.

---

<sup>15</sup>USXPORTS System Modernization, Statement of Work, Office of the Undersecretary of Defense for Policy, OUSD (P), October 16, 2000, page 1.

## FINDINGS AND CONCLUSIONS

### I. BXA Has Made Progress on ECASS 2000+ Project

BXA has long needed to replace the current ECASS system to properly administer export control laws and regulations. Many of the problems associated with BXA's prior attempts to redesign ECASS were due to a combination of technical, planning, managerial, and budgetary hurdles. However, since March 2000, BXA has been better able to focus its redesign efforts because it hired a project manager and coordinated its IT planning and budgetary cycles. As a result, two components of ECASS 2000+ should be ready for implementation in early to mid 2002.

#### A. *Appointing an ECASS 2000+ project manager brought direction to the redesign effort*

BXA's appointment of a project manager brought direction and stability to the redesign effort. BXA first initiated efforts to redesign its current ECASS system in 1996 when it hired a contractor to prepare four major planning documents<sup>16</sup> for the project. However, by 1998, BXA still did not have a dedicated project manager or team for the effort. As a result, in our June 1999 report on the export licensing process, we recommended that BXA establish a project management team, including a full-time project manager, to oversee development and implementation of BXA's new system as soon as possible. Thereafter, in March 2000 BXA hired an ECASS 2000+ project manager to oversee an effort that had been mostly dormant from early 1998 to early 2000.

Under the leadership of its ECASS 2000+ project manager, BXA has taken steps to ensure the short-term and long-term success of the ECASS 2000+ project. These steps include:

- ❖ following federal, industry and the Department's IT Enterprise Architecture Affinity Group's guidance and processes for system design and development,
- ❖ preparing initial system documentation, such as a Vision Document and Software Requirements Specification,
- ❖ hiring a contractor to oversee the integration of ECASS 2000+ components,

---

<sup>16</sup>These documents included a business case analysis, business process reengineering study, information architecture, and a cost-benefit analysis.

- ❖ overseeing the development of two key subsystems of ECASS 2000+—the Simplified Network Application Processing (SNAP)/Electronic Support Documentation system (ESD) and the Export Enforcement Investigative Tracking system (see parts B and C respectfully of this section for more detail on these systems), and
- ❖ preparing project documentation, including a software development plan and data migration plan.

Although we are pleased with the recent progress of the redesign effort, we want to emphasize the need for BXA to aggressively pursue its ECASS 2000+ implementation over the next four years. For ECASS 2000+ to be successful, it will need continued oversight by the ECASS 2000+ project manager as well as BXA's and the department's management team (see Section III, page 25).

***B. Exporters will soon be able to submit all license applications and supporting documentation on-line***

Although exporters can currently submit certain export license applications and other reporting forms to BXA via the Internet, corresponding support documentation for a license application has to be submitted separately as hard copy. These documents are then duplicated by BXA and delivered via courier to the referral agencies, a procedure that adds time and expense to the license review process. To address these and other problems, BXA and the USXPORTS office<sup>17</sup> are developing a "front-end" licensing subsystem, known as SNAP/ESD, that will allow exporters to submit all types of license applications as well as the corresponding support documentation on-line.<sup>18</sup> USXPORTS estimates that it will spend about \$1.0 million to complete the SNAP/ESD system.

According to documents provided by BXA, SNAP, which was first introduced to exporters in February 1999, provides more than 3,500 registered users, representing over 1,700 companies, the ability to submit certain export and re-export license applications, commodity classification requests, and high performance computer notices to BXA on-line. In fiscal year 2000, BXA received 61 percent of its license applications via the Internet. As a part of the redesign effort, the capabilities of SNAP will be expanded to include other on-line transactions, such as the submission of deemed export license applications and special comprehensive license applications.

<sup>17</sup>USXPORTS is responsible for designing and deploying SNAP/ESD, however, BXA's ECASS 2000+ project manager is the SNAP/ESD project manager for the USXPORTS office. Once completed, USXPORTS will turn the system over to BXA to house and maintain SNAP/ESD at its computer site.

<sup>18</sup>Support documentation includes diagrams, schematics, or other information to describe the product to be exported as well as additional information concerning the end user or end use of the product.



SNAP will be complemented by the development of ESD, an interactive data repository for supporting documentation. ESD will give exporters the ability to electronically submit their supporting documentation alongside their application. Currently, if an exporter submits its license application on-line and mails its supporting documentation to BXA, it may take several days for the two documents to match up with each other. Simultaneous submission of the license and supporting documentation should assist licensing officers in expediting the overall processing of license applications. Furthermore, by maintaining all of these documents in an interactive data repository, exporters will no longer need to submit supporting documents more than once for multiple license applications involving the same product.

ESD will also benefit the federal licensing agencies in their review of export license applications. Specifically, the new subsystem should facilitate license review and reduce processing times by eliminating paper processing both internally at BXA and at the licensing referral agencies. ESD will also reduce the time and money spent by BXA support staff on scanning support documents (after a case is closed), and copying and sending documents to other agencies via courier. In addition, referral agencies will have real-time access rights to the document library.<sup>19</sup>

Once exporters can electronically submit all types of applications and supporting documentation, BXA anticipates on-line submissions will increase. To date, two prototypes of the system have been prepared. The first was completed in August 2001 and included only the ESD system; the second was completed in September 2001 and included a redesigned SNAP and the ESD system. BXA and USXPORTS held several design peer reviews of the prototypes between June and December 2001.<sup>20</sup>

SNAP/ESD was also demonstrated in October 2001 to exporters at BXA's UPDATE 2001 conference in Washington, D.C. At that time, only the commodity classification feature was available for demonstration. BXA's ECASS 2000+ project manager expects all of the system features to be available when SNAP/ESD is scheduled for implementation in March 2002.

**C. *BXA has selected software for its new investigative tracking system***

A second ECASS 2000+ subsystem currently being developed is the Export Enforcement Investigative Tracking system. Since March 2001, BXA's system integration contractor has been analyzing user needs within BXA's enforcement community and evaluating commercial off-the-shelf (COTS) case management software. The ECASS 2000+ project manager informed us that

---

<sup>19</sup>According to BXA, specific access by the referral agencies will be limited to the documentation relating to those cases that have been referred to them by BXA.

<sup>20</sup>The peer reviews involved assessments of work products by future system users during the development of those work products to identify defects requiring correction.

the investigative tracking system was selected as the first redesigned subsystem based on available funding, the minimal functionality in the current investigative tracking system, and the possibility that a COTS solution would be available.

The search for a COTS solution ended in August 2001 when a case management software vendor was selected. According to BXA's Vision Document,<sup>21</sup> some of the features of the new subsystem will better enable export enforcement personnel to:

- ❖ create and open investigative cases based on leads;
- ❖ manage, upgrade, refer, close, or request collateral assistance on investigative cases;
- ❖ manage and track administrative and criminal case actions;
- ❖ conduct advanced investigative case and suspect queries; and
- ❖ capture and view supporting case documentation.

BXA estimates the costs for the selected package, including software, hardware, and training, to be around \$600,000. The new investigative tracking system is scheduled to be implemented in June 2002.

***D. BXA has begun linking strategic planning, budgeting, and IT planning***

OMB and the Department require agencies to link their budgets with IT planning. However, although BXA has prepared annual strategic plans in the past, it lacked a functioning process for formulating its strategic procurement and IT goals. Recognizing how these functions needed to be integrated, BXA established a Capital Planning Team in April 2001, made up of staff from its Offices of Planning and Evaluation, the Comptroller, and the CIO. As a result of the team's formation, BXA was able to coordinate its planning and budgeting processes, including efforts to redesign ECASS, for its fiscal year 2003 budget preparation. We believe that BXA's Capital Planning Team should continue its efforts.

---

<sup>21</sup>ECASS 2000+ Vision Document, Bureau of Export Administration, U.S. Department of Commerce, December 15, 2000.

## II. BXA Needs Better Planning to Ensure Long-Term Success of the Project

One of the most critical elements of a systems development effort is planning. Despite the fact that progress has been made on the ECASS 2000+ project, not enough time or resources have been devoted to basic planning for the project. As a result, (1) BXA's initial business process reengineering efforts are incomplete, (2) its cost estimates for ECASS 2000+ are outdated, and (3) some of the ECASS 2000+ requirements, such as those for licensing and security, have not been adequately specified and documented. We are making recommendations to address the problems we identified.

### A. BXA's initial business process reengineering efforts were incomplete

The need for agencies to reassess their business processes before investing in the technology that supports them was recognized in the Clinger-Cohen Act of 1996. Specifically, Section 5123(5) of the act requires agencies to:

"[a]nalyze the missions of the executive agency, and based on the analysis, revise the executive agency's mission-related processes and administrative processes as appropriate before making significant investments in IT that is to be used in support of the performance of those missions."<sup>22</sup>

OMB reinforced this mandate by requiring that investments in major information systems proposed for funding in the President's budget should, among other things, support work processes that have been redesigned to reduce costs and improve effectiveness.<sup>23</sup> As such, in 1997 the Department required BXA to conduct a business process reengineering (BPR) study prior to approving BXA's request for funds to modernize its current export licensing system.

At that time, BXA hired a consulting firm to assist it in reengineering its critical business processes. The consultant's final report,<sup>24</sup> issued in June 1998, summarized the processes to be reengineered and provided an implementation plan. Overall, BXA's first attempt to conduct a reengineering study was constructive. More than 50 BXA subject matter experts participated in defining and redesigning BXA's core business processes. Consequently, the study resulted in several meaningful recommendations to improve the export licensing and export enforcement processes.<sup>25</sup>

<sup>22</sup>40 U.S.C. § 1423.

<sup>23</sup>OMB Memorandum, "Funding Information Systems Investments," October 25, 1996.

<sup>24</sup>Department of Commerce, Bureau of Export Administration, *Final Report: Process Reengineering and Implementation Plan*, Booz-Allen & Hamilton, June 22, 1998.

<sup>25</sup>The BPR study also addressed reengineering of BXA's processes that result in export and internal operating policies and procedures.

The recommendations directed at improving BXA's export licensing process included the following:

- ❖ Create an electronic environment for every license application and supporting documentation.<sup>26</sup>
- ❖ Establish an up-front screening team to verify the Export Control Classification Number and help assign the action to the most appropriate licensing team.
- ❖ Implement a team approach for processing complex actions to improve the quality and coordination of the effort.
- ❖ Differentiate licensing actions into "A" and "B" categories, based on the complexity and need for technical depth, to most efficiently use BXA's technical expertise.

Although the study was clearly valuable in terms of defining and redesigning BXA's key business processes, we found that it was (1) narrow in scope and (2) not adequately addressed by BXA management. Specifically, only BXA-controlled processes were considered for redesign despite the fact that the Export Administration Act requires that BXA administer the interagency dual-use export licensing process. When we questioned BXA as to why it chose to study only BXA-controlled processes for redesign, we were told that the previous BXA management team thought it would be too costly to perform an interagency review. However, BXA was unable to provide us with any cost estimates to support that decision.

In addition, BXA did not adequately address the findings and recommendations of the study when it was issued in 1998. As a result, during our current review, BXA was unable to provide us with any justifications as to why some of the study's recommendations were accepted or rejected. Furthermore, we found little evidence to indicate that BXA put into practice many of the recommendations it claimed to accept. Because BXA did not address the broader interagency export licensing process in its original BPR study or adequately address the recommendations from the study, the future ECASS 2000+ system could potentially automate outmoded, inefficient business processes (e.g., the export licensing process), and not consider meaningful process improvements.

However, in the summer of 2001, BXA established an internal licensing task force to review the interaction between the licensing agencies and to generate ideas about how to improve the interagency export licensing process. The task force provided a report to the Export

---

<sup>26</sup>As discussed previously in Section I, BXA is currently working with USXPORTS to implement this recommendation through the SNAP/ESD initiative.

Administration's management team in August 2001 identifying six areas where improvements might be made. We believe the establishment of this task force was a positive step in rethinking how the interagency export licensing process could operate.

Furthermore, the USXPORTS office, which BXA participates in, has recently completed a BPR analysis<sup>27</sup> of the interagency dual-use export control process. The recommended BPR improvements are based on requirements identified by six interagency focus groups, comprised of representatives from Commerce, Defense, Energy, and State. The four major BPR improvements identified by USXPORTS follow.

- ❖ Broaden the electronic business exchange between industry and the U.S. government by (1) registering individual companies and individuals, (2) creating a single point of entry, and (3) submitting application data and technical specifications electronically.
- ❖ Provide robust data retrieval by maintaining a single "parties of interest" list in the system for all interested parties to tap into and provide tools for cumulative effect analysis.
- ❖ Enhance the license review and analysis process by establishing an interagency review team early in the license review process and improving interagency communication technology.
- ❖ Migrate to an unclassified data environment by creating an unclassified export licensing environment.

In October 2001, the USXPORTS office briefed its Steering Committee, comprised of the Deputy Assistant Secretary for Export Administration and various senior Defense officials, on the proposed BPR recommendations. According to USXPORTS, the committee has approved the reengineering recommendations, with slight modifications, and the next step is to determine how to implement those recommendations.

Clearly, the dual-use export control process is an interagency process, and we support BXA's involvement on the USXPORTS redesign effort to date. However, changes to current business processes need to be made as soon as possible, before the ECASS 2000+ system requirements are further specified. We recommend that BXA's new management team reevaluate the 1998 BPR recommendations, as well as recommendations from its internal task force, to determine if any of the proposed process changes are still appropriate. In addition, BXA should continue to work closely with the other licensing agencies to evaluate the interagency recommendations from

---

<sup>27</sup>USXPORTS Business Process Reengineering (Draft), Version 2.1, USXPORTS Program Office, August 28, 2001.

the USXPORTS reengineering effort, which BXA participated in. Finally, it is imperative that BXA make a decision about the recommendations from the two BPRs and the licensing task force report, as soon as possible, so that the ECASS 2000+ project team can develop any new major requirements for the licensing subsystem before it completes the Target Architecture (see Section III, page 25, for details on BXA's Target Architecture).

In response to our draft report, BXA agreed with our recommendation to reevaluate and determine whether any of the proposed changes outlined in BXA's 1998 BPR, the USXPORTS BPR, or BXA's August 2001 internal licensing task force report should be factored into the ECASS 2000+ design and requirements. Specifically, BXA reported that its new ECASS 2000+ user group, which began meeting on a bi-weekly basis in mid-December 2001, will address this recommendation as a part of its duties.

***B. BXA needs to update its cost estimates***

There is much guidance on the need for accurate and complete cost data throughout the life of a project. For example, OMB requires updated cost-benefit analyses<sup>28</sup> for all IT investment decisions. In addition, a recent report from the Chairman of the Senate Governmental Affairs Committee recommended that executive departments and agencies ensure that any cost-benefit data used in investment decision making be accurate and complete.<sup>29</sup> Furthermore, GAO guidelines emphasize that reliable cost estimates are essential for making effective IT investment decisions. Specifically, GAO states that the cost-benefit, schedule, and risk information included in an agency's analysis to justify the project, should be updated as project implementation continues and as dollar amounts increase.<sup>30</sup>

Towards that end, BXA prepared a cost-benefit analysis in September 1998.<sup>31</sup> We believe this analysis was a much needed first step for BXA and provided a catalyst for gaining support for its ECASS 2000+ redesign effort. However, BXA has not updated that analysis since that time. As a result, BXA's redesign is based on a cost-benefit analysis that is outdated both in terms of costs and proposed requirement changes. Table 1 identifies additional features that make BXA's 1998 cost-benefit analysis outdated for the current redesign effort.

<sup>28</sup>OMB Circular A-130, November 30, 2000. Although the OMB circular uses the term "benefit-cost" analysis, this report uses the more commonly used term "cost-benefit" analysis.

<sup>29</sup>*Investigative Report of Senator Fred Thompson on Federal Compliance with the Clinger-Cohen Act*, October 20, 2000.

<sup>30</sup>*Improved Management Practices Needed to Control Integration Cost and Schedule*, General Accounting Office, AIMD-99-25, December 1998.

<sup>31</sup>*BXA Cost Analysis Study*, Bureau of Export Administration, September 9, 1998.

**Table 1 Current Factors Affecting 1998 Cost-Benefit Analysis Assumptions**

1998 Assumptions	2001 Current Factors
➤ System operational by the end of fiscal year 2002.	➤ System operational by the end of fiscal year 2006.
➤ System based on a centralized architecture.	➤ System based on a decentralized (web-based) architecture.
➤ System located at Commerce headquarters.	➤ System based at some federal or public facility.
➤ System comprising many commercial off-the-shelf products.	➤ System comprising software development and commercial off-the-shelf products.
➤ System based on 1998 business process reengineering recommended changes.	➤ BPR recommendations made in 1998 have not been completely addressed.
➤ Old system to have minimal support and upgrades while new system is being developed.	➤ Changes to the old system needed as a result of delaying the system redesign into fiscal year 2006.

Source: BXA's Cost Analysis Study, September 1998, and OIG Analysis.

BXA officials stated that limited resources (i.e., funding and staff) and time have precluded BXA from updating its cost-benefit analysis. While BXA has recently increased its cost baseline for ECASS 2000+ from \$6 million in 1998 to \$7.5 million in 2001, the increase was not based on a detailed cost analysis of all planned system components. In addition, this increase did not include security costs (e.g., Public Key Infrastructure) for the new system (see page 21 for details on IT security needs). As a result, BXA does not know what additional funding will be needed for system enhancements and security in the out years. To successfully complete ECASS 2000+ in a timely manner, we recommend that BXA determine what resources are needed in the short-term (FYs 2002 and 2003) and long-term (FYs 2004 through 2006) and how to secure adequate funding for ECASS 2000+. Consideration should be given to reallocation of resources if funding is not adequate, or to an extension of the project timetable.

---

In response to our draft report, BXA indicated that it was obtaining an independent cost estimate based on the proposed multi-year software development plan provided by its integration contractor. Subsequently, BXA informed us that USXPORTS will provide integration contractor expertise to accomplish its independent cost estimate sometime during the second quarter of fiscal year 2002. In addition, BXA's response stated that as part of its ongoing dialogue with USXPORTS, BXA will try to share resources to provide maximum value to the interagency licensing community. Given that the fiscal year 2004 budget cycle is about to begin, we strongly urge BXA to determine its full costs for its redesign effort as soon as possible.

**C. *Some ECASS 2000+ requirements need to be validated and specified***

Early requirements preparation will be key to the success of ECASS 2000+ over the next four fiscal years. To determine the status of requirements preparation, we reviewed all relevant documentation and interviewed specific users as to their participation in requirements analysis. While we determined that BXA had adequate user involvement in the design of its SNAP/ESD and Investigative Tracking subsystems, we found minimal user involvement in requirements preparation for the licensing subsystem. In addition, we found that the IT security requirements had not been specified.

**1. *User validation is needed for licensing subsystem***

The success of software projects, such as ECASS 2000+, depends on adequately specifying system requirements to meet operational needs.<sup>32</sup> Software errors are frequently attributable to problems with or misunderstandings about user requirements, and these errors generally are the most expensive to fix. Consequently, every reasonable effort should be made to precisely define system requirements, and as early in the project as is feasible.<sup>33</sup> Despite this obvious caveat, we found little evidence of user involvement in documenting the proposed ECASS 2000+ licensing requirements. Figure 3 illustrates how users should be involved in requirements preparation.

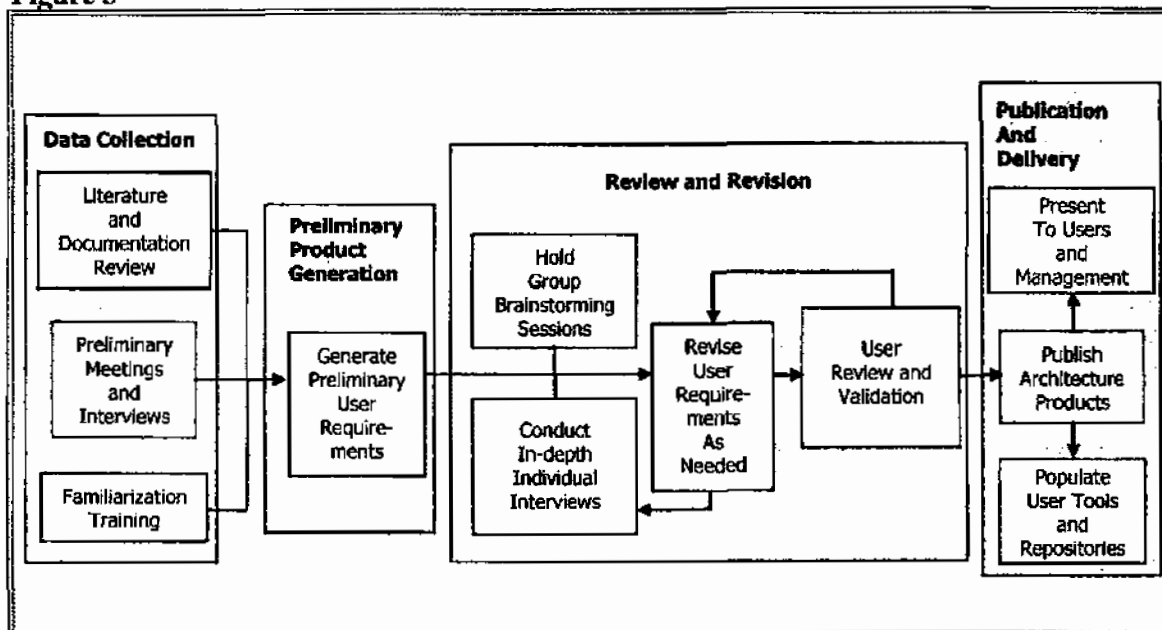
---

<sup>32</sup>User requirements define the proposed components of a system.

<sup>33</sup>See, for example, *Data Capture System 2000 Requirements and Testing Issues Caused Dress Rehearsal Problems*, U.S. Department of Commerce Office of Inspector General, OSE-10846, January 1999.



Figure 3



Source: *A Practical Guide to Federal Enterprise Architecture*, Chief Information Officers Council, February 2001.

To determine the actual extent of user participation in documenting BXA's requirements, we interviewed all BXA personnel identified by the ECASS 2000+ project team as "users" involved in the requirements process. The BXA users informed us that although they had talked about various issues during the user group sessions, they did not systematically outline the future licensing requirements of ECASS 2000+. Instead, the users emphasized that they spent time documenting the current system functions and preparing a "wish list" of potential new system features. The users expressed concern that BXA's IT personnel had outlined most of the proposed licensing subsystem requirements without their input.

BXA's IT personnel agreed that they spent a lot of time documenting proposed licensing requirements without user input. However, they indicated that they asked for licensing officials to participate in identifying future licensing requirements but the individuals either were not interested or not available. As a result, team members decided to obtain initial licensing requirements from BXA's 1998 BPR study. Although we agree that the BPR study collected requirements from experienced licensing officials at that time, some requirements may be outdated and others may have changed since 1998.

In addition, we have concerns that BXA developed requirements without buy-in from current referral agency users, including State and Justice. Both agencies have ECASS terminals that they

use to process license applications referred to them. However, BXA did not include them in any of its user groups. During our discussions with representatives from both agencies, they informed us that they would like to participate in BXA's future user group discussions on licensing requirements.

Because of minimal user participation in defining the requirements for the licensing subsystem (1) all requirements may not have been identified and (2) identified requirements may be inaccurate or incomplete. Therefore, the system may not meet user needs when it is implemented. BXA's ECASS 2000+ project team agreed that user involvement is critical for defining user requirements and that more user involvement is needed for preparing the licensing requirements. For example, the ECASS 2000+ Risk Tracking document, dated April 2001, identified having "no business user group" as a high risk for the project that could result in a lack of acceptance by the users of the new system.

While it would be inefficient to initiate a large-scale requirements specification process at this stage in the project, we believe that the ECASS 2000+ licensing requirements need to be properly validated by a representative sample of licensing users. The ECASS 2000+ project manager agrees. Therefore, we recommend that BXA ensure that appropriate users, including those from the referral agencies, validate its system requirements for the licensing subsystem.

---

BXA's response to our draft report agreed with our recommendation to ensure that appropriate users, including those from the referral agencies, validate the system requirements for the license subsystem. Specifically, BXA stated that its integration contractor will validate all requirements through detailed use case reviews by the user groups in the multi-year development project. However, BXA stated that it was inaccurate for us to report that the licensing requirements were developed without user input. Specifically, BXA's response indicated that it was too early in the process for full user involvement given that the detailed elaboration and construction of the licensing subsystem is not scheduled until fiscal year 2003.

On the other hand, BXA's response stated that many of the high level requirements for the licensing subsystem were taken from the 1998 BPR and additional requirements were gathered from selected interviews. BXA also contends that the review of its December 2000 Software Requirements Specification document by key business users confirmed the high level requirements as defined. In addition, BXA indicated that the level of detail was expanded by several redesign workshops where users both documented the current processes and the "to-be" processes. Subsequently, the ECASS 2000+ team members drafted the initial use cases (how the system and users are to interact) and then turned them over to the integration contractor.

While we never stated that the licensing requirements were developed without any user input, we maintain that there was minimal user involvement in this process. Furthermore, while we agree that the requirements exercise performed by BXA users in 1998 was a valid starting point, BXA changed its system design after its 1998 review and ultimately some of its requirements, making a revalidation of requirements necessary. Based on interviews with BXA personnel identified by the ECASS 2000+ project team as "users" involved in the requirements process and our review of limited documentation available on this matter, we determined there was minimal user participation in defining the requirements for the licensing subsystem. Finally, we want to point out that in September 2001, the Department's IT Architecture Affinity Group informed BXA that it should have been further along in completing its system requirements and requested that BXA complete its target architecture (which includes user input and validation) no later than the second quarter of fiscal year 2002. Therefore, it was not unrealistic to expect BXA to have been further along in documenting and validating its licensing requirements at the time of our review.

## **2. IT security requirements need to be specified and documented**

Although BXA has prepared detailed functional requirements for different parts of ECASS 2000+, it has not specified the necessary security requirements to ensure the integrity of mission critical information. Security requirements are essential to any redesign effort because they define the security measures, and they are a precursor to developing target architecture. Departmental guidelines require each agency to define and identify, as early in the design phase as possible, security requirements for ensuring the confidentiality, integrity, and availability of critical IT resources.<sup>34</sup> Specifically, these guidelines identify 10 security areas that need to be addressed during system design (see Table 2).

---

<sup>34</sup>The Department's IT Affinity Group recommends that departmental agencies use the National Oceanic and Atmospheric Administration's IT guidelines for requirements analysis and architecture preparation.

**Table 2 IT Security Areas To Be Addressed During System Design**

➤ Access Controls
➤ Telecommunications and Network Security
➤ Contingency Practices and Disaster Recovery
➤ Security Management Practices
➤ Security Architecture and Model
➤ Computer Operations Security
➤ Law, Investigation, and Ethics
➤ Application and System Development Security
➤ Cryptography
➤ Physical Security

Source: The National Oceanic and Atmospheric Administration Information Technology Architecture, IT Security, Version 2.1, June 2001.

We raised this issue continuously during our review with BXA officials, including the ECASS 2000+ project manager, and departmental IT personnel. The Department's IT Affinity Group, established to oversee systems architecture by departmental agencies, also raised concerns with BXA that the security requirements had not been specified. During the course of our review, BXA prepared some initial security requirements and estimated that they would be completed by December 2001 (although it should be noted that the original date of completion was September 20, 2001). The ECASS 2000+ project team members informed us that although preparing security requirements is a priority task, it is also a large undertaking. They believe that the team lacks adequate resources to complete this task in a timely manner. Specifically, only one part-time team member has been given the responsibility for IT security and preparing the target systems architecture.

Given that ECASS 2000+ will be a web-based system connected to the Internet, adequate security is needed to protect the increased transfer of business proprietary information. Specifically, ECASS 2000+ will implement new Internet services and provide electronic access for users of BXA information and services. To address this need for upgraded security, a key component of ECASS 2000+ will involve Public Key Infrastructure (PKI) technology. PKI is a technology designed to protect Internet electronic transactions through the use of digital certificates and encryption keys. Digital certificates are used to verify and authenticate the validity of each party involved in an Internet transaction, and encryption keys are used to secure the data.

Without specifying its proposed security requirements, including but not limited to PKI, BXA cannot adequately design its new system or determine how much additional funding for security

might be needed in the outlay years. Therefore, we recommend that BXA document its security requirements as soon as possible and determine how to fund them, including whether it should reallocate existing resources or make them a high funding priority.

In response to our draft report, BXA agreed with our recommendation to document its security requirements and determine how to fund them as soon as possible. Towards that end, BXA indicated that it will implement a robust IT security action plan in fiscal year 2002 by redirecting existing resources. In addition, OMB has approved a \$1 million increase for BXA's IT security program (including the implementation of PKI) in fiscal year 2003. Furthermore, BXA's ECASS 2000+ program manager recently informed us that BXA intends to direct 10 percent of the ECASS 2000+ fiscal year 2003 budget to security-related activities.

However, BXA's response disputed our finding that it had not prepared security requirements for ECASS 2000+. Specifically, BXA stated that the ECASS 2000+ IT security requirements were specified at the time of our review, albeit at a high-level. However, BXA indicated that such requirements were not detailed in the December 2000 Software Requirements Specification because they represented an initial view based on the team's knowledge at that time. Furthermore, BXA's response argued that these requirements could not be finalized until (1) the Department solidified its network infrastructure, and (2) BXA's integration contractor proposed the ECASS 2000+ system software/hardware. We disagree that most of the detailed security requirements could not have been completed based on the two reasons cited by BXA.

First, BXA's ECASS 2000+ system and the Department's network infrastructure have separate and distinct security requirements. While it is important for ECASS 2000+ to properly interface (including access controls) with the Department's network, BXA is not restricted by the Department's network infrastructure. Furthermore, the Department's requirements for its network infrastructure are at a higher and more generic level than BXA's detailed requirements for its system. As such, all 10 areas listed in Table 2 of this report could have been addressed without knowing the final departmental network infrastructure. For example, given that the Department's network infrastructure is just one component of access controls BXA needed to address, BXA could have started outlining and documenting the other access control components for its new system.

Second, BXA should have prepared its detailed security requirements prior to its integration contractor proposing the ECASS 2000+ system software/hardware. The contractor could have reviewed and incorporated those requirements into the proposed ECASS 2000+ system hardware and software. During the course of our review, ECASS 2000+ project team members and the

systems integration contractor agreed that security requirements could have provided valuable input for the design of the proposed system hardware and software.

### III. BXA Needs to Strengthen its Modernization Effort by Implementing Established IT Management Best Practices

In June 2001, the Secretary of Commerce emphasized that management of all departmental IT projects needs to be strengthened.<sup>35</sup> Toward that end, departmental agencies are required to upgrade their management structures to ensure that established management processes and documentation are in place early in systems development efforts. As of September 30, 2001, the ECASS 2000+ project still lacked an adequate (1) configuration management process, (2) risk management process, (3) software acquisition training program for its project team members, (4) project management plan, and (5) target architecture. These are all key system management tools needed to better manage the redesign effort.

The project management tools identified above have long been recommended by OMB's CIO Council,<sup>36</sup> GAO,<sup>37</sup> and departmental IT guidelines.<sup>38</sup> The ECASS 2000+ project manager acknowledged that these management tools should be instituted, but stated that the lack of resources dedicated to this project have made it difficult to manage and oversee the redesign effort, in addition to implementing the management tools in a timely manner. The ECASS 2000+ project team currently is comprised of a full-time project manager (who also participates as a full partner with the USXPORTS office up to one day a week) and three part-time federal employees (who are also assigned to other IT duties within BXA not directly affiliated with the redesign effort). Because the current project team members had multiple duties, the project manager had to (1) enlist its ECASS maintenance contractor to help design the new system (while still continuing to maintain the current system) and (2) rely heavily on its system integration contractor for the design, implementation, and oversight of the redesign project.

BXA's senior management needs to address the resource constraints and ensure that the ECASS 2000+ project is not put at risk because it lacks adequate management processes and system documentation. Table 3 lists each of these management tools and the specific effects of not having a particular tool in place.

---

<sup>35</sup>*Strengthening Commerce Information Technology Management*, Memorandum to Secretarial Officers and Heads of Operating Units, June 13, 2001.

<sup>36</sup>*A Practical Guide to Federal Enterprise Architecture*, Chief Information Officers Council, February 2001.

<sup>37</sup>For example, see report, *Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology, Learning from Leading Organizations*, GAO-94-115, May 1994.

<sup>38</sup>*Department of Commerce Information Technology Planning and Investment Review Maturity Model*, July 2001.

**Table 3 Management Tools Needed for ECASS 2000+ Project**

Management Tool	Impact of Not Having Management Tools in Place
<p><b>Configuration Management</b> A process used to (1) control and track access and changes to system components, (2) coordinate work among developers, and (3) provide the means for building system baselines for testing and release.</p>	<p>Without a configuration management process in place, BXA cannot track access and control changes to its requirements and system components. According to BXA's April 2001 Risk Tracking Document, BXA had no in-house configuration management experience, placing the project at risk of having insufficient in-house control over software development and inadequate accountability. BXA informed us that it attempted to implement configuration management software, but as of September 30, 2001, this software had not been installed nor had an individual been assigned to oversee configuration management. BXA's system integration contractor had prepared a draft configuration management plan as of late September 2001, but the ECASS 2000+ project manager had not approved the plan by the conclusion of our fieldwork.</p>
<p><b>Risk Management</b> A process for ensuring that current and potential problems, threats, and vulnerabilities of a systems development effort are identified and addressed in a timely manner.</p>	<p>Without a risk management process in place, BXA does not know what potential risks exist that might affect the project and how to address those risks in a timely manner. BXA's contractor did submit a risk management plan on September 27, 2001, but the plan lacked the details needed to identify the vulnerabilities.</p>
<p><b>Software Acquisition Training</b> A process to ensure that current project staff members have received adequate training to properly oversee all software acquisition and development efforts.</p>	<p>With the exception of the ECASS 2000+ project manager, the project team lacks the training required to oversee software development of ECASS 2000+. Although the project team members have had some initial software acquisition training, the team has been too busy to complete follow-up training through BXA's systems integration contractor.</p>
<p><b>Project Management Plan</b> A document that tracks the progress, accomplishments, and other areas requiring attention for each system development effort.</p>	<p>Without a Project Management Plan, the ECASS 2000+ project team does not know when each phase of the project is due to be completed or even whether there have been project delays. BXA's April 2001 Risk Tracking Document also highlights this risk. While BXA's systems integration contractor prepared a draft Project Management Plan on September 25, 2001, it lacked several sections, including a proposed milestone schedule (a basic element of any project plan).</p>
<p><b>Target Architecture</b> A group of documents, including (1) Technical Reference Model, (2) Standards Profile, (3) Gap Analysis, and (4) Data Migration Plan, which define new and future processes through data, applications, and technology changes.</p>	<p>Without a target architecture, the ECASS 2000+ project team cannot adequately ensure that all components of the new system adhere to the same proposed standards and technology. Several of the required documents have not been completed, such as the technical reference model and standards profile. Although BXA is currently attempting to define the architectural standards and technology for ECASS 2000+, two of its subsystems (SNAP/ESD and the Investigative Tracking system) will be implemented in early 2002 and might require technology changes once the final architecture standards have been selected. In addition, without the target architecture, BXA cannot determine where ECASS 2000+, including the two subsystems currently being implemented, should be located if it does not remain at the Department's Springfield Computer Center.</p>

Source: Commerce Office of Inspector General.



### Conclusions

BXA has requested, but not received, additional positions from the Congress for the redesign effort. As a result, senior BXA managers need to consider alternative ways to provide adequate personnel and funding resources to ensure that established management tools are in place for ECASS 2000+ and to keep the project on schedule.<sup>39</sup> This may include reallocation of existing resources within BXA, as necessary. Given the shortcomings and inadequacies of the current export licensing system, it is imperative that BXA senior managers oversee the modernization project and dedicate appropriate resources to it in order to ensure that its revised fiscal year 2006 deadline is met.

In addition, BXA senior managers, including BXA's CIO, should periodically meet to discuss ECASS 2000+ development efforts, including any delays or major problems with the project. One vehicle BXA managers could use to provide project oversight is BXA's IT Steering Committee. In August 1997, this committee was established as a tool for BXA's senior managers to periodically review all IT projects. However, since June 2000 this committee has only met once—in October 2001 after our fieldwork was completed.

Furthermore, BXA needs to strengthen its redesign effort by (1) implementing its configuration management process, (2) implementing its risk management process, (3) completing all necessary software acquisition training, (4) revising and approving the project management plan, and (5) completing its target architecture. Finally, BXA needs to make a decision about where its new system should be located no later than the second quarter of fiscal year 2002.

---

In response to our draft report, BXA agreed with our various recommendations to strengthen its management of the ECASS redesign effort. Specifically, BXA informed us that its IT Steering Committee met twice in October 2001 to approve the multi-year ECASS 2000+ software development plan, and that the committee plans to hold quarterly meetings in the future to address both ECASS 2000+ and any other IT issues. BXA's response also stated that in an effort to keep BXA managers and potential users of the new system regularly updated on the system's development, its managers receive a one to two page biweekly update of all major ECASS 2000+ activities, and a new ECASS 2000+ website was established in February 2002 for all potential users.

---

<sup>39</sup>Initially, BXA's target date for implementing ECASS 2000+ was fiscal year 2003. That target date has now been extended to fiscal year 2006, and BXA still does not know whether the full system will be completed within that timeframe.

In addition, BXA's response stated that its integration contractor has instituted an active risk management process and begun to implement a configuration management process using the Rational toolset. BXA also indicated that it expects to provide all of the ECASS 2000+ team members on-line access to these processes in February 2002. Moreover, subsequent to our draft report, the ECASS 2000+ project team members have reportedly completed the necessary software acquisition training. Specifically, in November 2001 the team conducted a self-assessment of the software acquisition processes currently in place and the steps necessary to implement ongoing process improvements. Furthermore, BXA's response stated that the ECASS 2000+ program manager will revise and approve the program management plan during the second quarter of fiscal year 2002.

Finally, BXA's response indicated that completion of the target architecture will be a priority task during the second quarter of fiscal year 2002. As a part of that effort, BXA is currently conducting a data center study and hopes to have a final candidate list in February 2002. At that time, BXA anticipates visiting the proposed sites and making recommendations to BXA management as to where its new system will be located. BXA hopes to have a final decision on this matter during the third quarter of fiscal year 2002.

Although BXA agreed with our recommendations to implement established IT management best practices to strengthen its modernization efforts, it took exception to our characterization that due to resource constraints, the ECASS 2000+ project manager had to enlist the help of its ECASS maintenance contractors and heavily rely on its integration contractor for the design, implementation, and oversight of the redesign project. While BXA may have intended to use its ECASS maintenance contractor for various tasks associated with the redesign effort, we were informed differently during our review by both ECASS 2000+ project team members and ECASS maintenance personnel. Given the age of ECASS, it is our understanding that BXA's maintenance contractors are kept fairly busy "maintaining" the current system and ensuring that it remains operational. As such, our report was simply highlighting the need for dedicated full-time personnel to work on the redesign effort. Furthermore, while we agree that BXA's ECASS integration contractor has played and will continue to play a key role in the development of ECASS 2000+, a project manager needs adequate in-house staff to oversee all of the sub-tasks associated with a system development project.

#### IV. Interagency Cooperation on Planning, Design, and Development Has Been Mixed

Our 1999 report on the export licensing process cautioned BXA that without improved coordination between the licensing agencies, the simultaneous development of multiple and distinct export licensing automation systems would continue. Thus, we recommended that BXA coordinate its system development efforts with the other export licensing agencies. As a part of that coordination effort, we recommended that BXA encourage these agencies to establish an interagency steering committee to review the automation portion of the export licensing process, from coordinating common system architecture requirements to determining how interagency resources could be used to fund and implement a new system. Since then, BXA has participated in and coordinated with some of USXPORTS automation efforts currently underway; however, BXA has not involved the other licensing agencies in its own redesign effort beyond SNAP/ESD.

According to OMB Circular A-130, federal agencies should ensure that improvements to existing information systems and the development of planned information systems do not unnecessarily duplicate existing information systems. However, BXA managers have not, to date, seen fit to include the other licensing agencies in its efforts to modernize ECASS.

##### Joint BXA and USXPORTS initiatives

In an attempt to work more closely with Defense, BXA's ECASS 2000+ project manager also serves as the Commerce project manager for Defense's USXPORTS. As such, the project manager participates as a full partner with the USXPORTS office and dedicates up to one full day a week to USXPORTS activities. We believe this arrangement is an important first step for both agencies to better coordinate their automation efforts. In addition, as mentioned previously, there are two important USXPORTS initiatives currently underway in which BXA is a key participant.

First, BXA and USXPORTS are jointly working on SNAP/ESD, which will enable exporters to concurrently submit all export license applications and supporting documentation electronically. The USXPORTS office is funding the project, and BXA's ECASS 2000+ project manager is responsible for overseeing the development of the project for USXPORTS. Once completed, USXPORTS will turn the system over to BXA to house and maintain SNAP/ESD. We believe the partnership shown on this project has demonstrated the benefits of agencies working cooperatively together.

Second, both BXA and the USXPORTS office are working to improve the automated interface between BXA's and Defense's export licensing systems by establishing a dedicated T-1 communication line (unclassified but sensitive) between the two agencies. A T-1 line is a dedicated high-speed connection that will enable faster and more secure transmission of data between the two agencies. According to USXPORTS, security testing for the T-1 line began in January 2002 and will continue until March 2002 when the line is to become fully operational to support SNAP/ESD. Finally, we would like to reemphasize that BXA personnel participated in USXPORTS's BPR efforts for the dual-use licensing process. Clearly, the dual-use export control process is an interagency process, and we commend BXA's involvement in the USXPORTS reengineering efforts to date.

#### Developing licensing requirements in isolation

As we mentioned earlier in Chapter II, Section C, BXA is developing requirements for ECASS 2000+ without input or validation from the current referral agency users (e.g., State and Justice) or potential referral agency users (e.g., Defense). Both State and Justice licensing officers use ECASS to process license applications referred to them. As such, they should be included in the development of licensing requirements for the new system. In addition, given that Defense is currently evaluating whether to migrate its export licensing data to an unclassified environment,<sup>40</sup> it is even more imperative that Commerce and Defense work together to develop common licensing requirements. In fact, according to BXA's April 2001 ECASS 2000+ Risk Tracking document, the lack of sharing and validation of user requirements among the interagency community might result in BXA developing a system that will not efficiently and effectively process export license applications.

#### Other system alternatives need to be explored

Because BXA is developing its licensing system independently, it may not be adequately evaluating other system alternatives for its license processing needs beyond enhancing the interfaces with the existing licensing systems. For instance, two other alternatives that the USXPORTS office has identified to improve the export licensing process include a hybrid "system-of-systems" and a single federal dual-use licensing system.

---

<sup>40</sup> According to Defense, its export license data is primarily unclassified, however, Defense was uncertain whether this unclassified data remained unclassified in the aggregate. As a result, Defense recently completed an Operational Security study that concluded that the compilation of Defense's unclassified export license data does not need to be classified based on the aggregation of the data and should be treated as sensitive but unclassified data.

- ❖ **Hybrid System-of-Systems:** A system to house all data submitted by industry in a single database, but each export license agency would build its own licensing subsystem unique to its agency's needs and functions.
- ❖ **Single Federal Dual-Use Licensing System:** A single integrated system to replace all federal export licensing automated systems supporting the dual-use export license review process.

The hybrid system-of-systems alternative seems to offer a more integrated export licensing process environment than currently exists. In fact, at least one of the features of this alternative is currently being developed. Specifically, while the hybrid system of systems option includes a central repository for all data records pertaining to an export license, the SNAP/ESD subsystem that BXA and USXPORTS are already developing will in effect be a central repository for all electronic supporting documentation. We believe this effort could easily be expanded to incorporate the rest of the license record, including (1) license application data, (2) referral history, and (3) final disposition of case.

However, BXA has expressed concern that the creation of a central repository for all license data records would eliminate its ability to review license applications upfront for completeness before the applications are referred. We believe that BXA's concern can be addressed, if necessary. As the electronic support documentation system is currently planned, the interagency licensing agencies will only have specific read-only access to the documentation relating to those cases that have been referred to them by BXA. Therefore, it should be technically feasible to put similar controls on license applications so that BXA can initially review the applications before giving the referral agencies access to those cases in the system that they have asked to review.

At a minimum, we believe that BXA and the other export licensing agencies can effectively use one data repository to provide user access to licensing subsystems and support tools while allowing agencies to maintain control of their respective databases. Besides the efficiency gains associated with this alternative, a central repository of all license data will also provide a tool for cumulative effect analysis which can be used in processing future relevant licensing cases.

In addition, while we believe there would be definite savings and efficiency gains, such as merging computer facilities, standardizing hardware and software, and reducing systems support staff, in having a single federal dual-use licensing system, we realize that three of the six export licensing agencies—Defense, Energy, and the CIA—currently operate in a classified environment. Thus, this alternative may be harder to achieve at this time. However, if Defense migrates its export licensing data to an unclassified environment in the near future, this alternative would potentially be feasible for Commerce, Defense, Justice, and State, at a minimum, and should be adequately evaluated by BXA and the other export licensing agencies.

As such, BXA should explore whether Defense could use the ECASS 2000+ licensing subsystem for its export licensing needs.

### Conclusions

According to BXA, 86 percent of license applications are referred to other agencies for review. As a result, understanding how each agency contributes to the licensing process is essential for planning the redesign of ECASS. Although BXA has taken some steps to participate and coordinate with Defense to improve the current automated systems that support the export license process, BXA does not have a clear definition of how it will continue to work with Defense or the other licensing agencies. Therefore, we recommend that BXA work with the other export licensing agencies to develop a written agreement between BXA and the license referral agencies, including the Departments of Defense, Energy, Justice, State, and the Treasury, and the CIA. The agreement should outline both the responsibilities of each party involved and how best to coordinate BXA's ECASS 2000+ redesign effort with the other agencies' automation initiatives.

BXA's response to our draft report indicated that it partially agreed with our recommendations to improve interagency cooperation and coordination on its ECASS redesign effort. Specifically, BXA's response stated that it has provided Defense with copies of all of its ECASS 2000+ developmental products (e.g., Vision Document, Software Requirements Specification document, and the initial library of developed use cases) in an effort to avoid duplication, and that BXA continues to explore with Defense the option of using ECASS 2000+ for Defense's export licensing needs. However, when further questioned on this matter, BXA informed us that it has not asked Defense to use BXA's new ECASS 2000+ for Defense's licensing needs nor does BXA believe it is appropriate to do so. We disagree. Given that Commerce has the legislative mandate to administer the interagency dual-use export licensing process and the fact that a recent security review concluded that Defense could migrate its export licensing data to an unclassified environment, it is an opportune time for Commerce to aggressively explore with Defense the feasibility of it using ECASS 2000+ for its export licensing needs.

Furthermore, BXA's response stated that it is already working with Defense's USXPORTS office to develop a central repository for all electronic supporting documentation (SNAP/ESD), and that the development of more appropriate interfaces to enhance the data flows within agencies and data sharing will be determined by a number of factors, both technical and non-technical. While we commend BXA for working with Defense to develop SNAP/ESD, we do not believe that this effort goes far enough. Specifically, only one referral agency (State)

currently has the ability to centrally view all application data, agency comments and the final disposition on cases that are referred to it.<sup>41</sup> However, by creating a central repository for all unclassified export licensing data (including, at a minimum, license application data, referral history, and the final disposition of a case), all referral agencies could have access to this data.

Finally, while BXA's response stated that it has a Memorandum of Agreement in place with Defense committing Commerce resources to improving the interagency licensing processes through the coordination of automation initiatives, BXA later informed us that it does not have such an agreement in place with Defense. While we understand that there is a letter from the former Under Secretary for Export Administration to the Principal Deputy Under Secretary of Defense (Acquisition Technology and Logistics), dated June 30, 2000, indicating BXA's willingness to participate and coordinate with Defense's efforts to improve the current automated systems that support the export license process, the letter does not outline specifically how BXA will continue to work with Defense or the other licensing agencies once the SNAP/ESD project is complete.

BXA's response also notes that Defense's efforts (through its USXPORTS office) to fully engage all of the export licensing agencies to improve the interagency export licensing systems have not been fully successful. However, it is our understanding that one of the key factors that hindered USXPORTS ability to fully engage the export licensing agencies (most notably State's Office of Defense Trade Controls, which oversees the munitions export licensing process) was the fact that it had no authority to do so. However, BXA, which has the legislative mandate to administer the interagency dual-use export licensing process, does have the authority and responsibility to aggressively work with the referral agencies to improve the various automated dual-use export licensing systems. Therefore, we again reiterate our recommendation for BXA, in coordination with the referral agencies, to develop a written agreement ensuring that dual-use export licensing systems are developed, integrated, and modernized without duplication. Furthermore, the agreement should outline the responsibilities of each agency involved in the process to ensure maximum interagency cooperation and coordination in the licensing of controlled exports. At a minimum, BXA should develop a central repository for all unclassified data records pertaining to an export license. The repository should have appropriate access controls while also allowing the agencies to maintain control of their respective databases, as appropriate.

---

<sup>41</sup> BXA informed us that it previously developed subprograms for Defense and the CIA to view agency comments and final disposition of cases, but it is not sure if the subprograms are being used anymore.

## **RECOMMENDATIONS**

We recommend that the Under Secretary for Export Administration take the following actions to better ensure the success of the ECASS 2000+ project:

1.     Reevaluate and determine, as soon as possible, whether any of the proposed changes outlined in BXA's 1998 BPR, the USXPORTS BPR, as well as BXA's August 2001 internal licensing task force report, should be factored into the design and requirements for ECASS 2000+ (see page 15).
2.     Determine what resources are needed in the short-term (FYs 2002 and 2003) and long-term (FYs 2004 through 2006), how to secure adequate funding levels, and whether it is necessary to extend the project timeframe (see page 17).
3.     Ensure that appropriate users, including those from referral agencies, validate the systems requirements for the licensing subsystem (see page 20).
4.     Document security requirements as soon as possible and determine how to fund them, including whether BXA should reallocate existing resources or make them a high funding priority (see page 23).
5.     Convene a meeting periodically of BXA senior managers, including the CIO, to discuss ECASS 2000+ development efforts, and any anticipated delays or major problems with the project (see page 27).
6.     Implement the ECASS 2000+ configuration management process during the second quarter of fiscal year 2002 (see page 27).
7.     Implement the ECASS 2000+ risk management process during the second quarter of fiscal year 2002 (see page 27).
8.     Ensure that the ECASS 2000+ project team completes the necessary software acquisition training during the second quarter of fiscal year 2002 (see page 27).
9.     Revise and approve the project management plan during the second quarter of fiscal year 2002 (see page 27).
10.    Complete the target architecture and select a location to house BXA's new export licensing automation system during the second quarter of fiscal year 2002 (see page 27).



11. Explore whether Defense could use the ECASS 2000+ licensing subsystem for its export licensing needs (see page 32).
12. Work with the dual-use export licensing agencies to develop a central data repository for all data records pertaining to an export license reviewed by these agencies. The repository should have appropriate access controls while also allowing the agencies to maintain control of their respective databases (see page 32).
13. Develop a written agreement between BXA and the license referral agencies, including the Departments of Defense, Energy, and State, and the Treasury, and the CIA outlining the responsibilities of each party involved in this effort and how best to coordinate the ECASS 2000+ redesign effort with each agency's automation initiatives (see page 32).

## APPENDIX A

### STATUS OF 1999 INTERNAL CONTROL RECOMMENDATIONS

In its 1999 report on export licensing,<sup>42</sup> we made a number of recommendations related to internal controls for the current ECASS system. In response to our recommendations, BXA indicated in some cases that it would build specific internal controls into its new licensing system, ECASS 2000+, to address a control problem that it could not correct in the current system. Those controls planned for ECASS 2000+ are also highlighted below, but we did not complete a review of the internal controls planned for the new system. Our 1999 internal control recommendations and the status of BXA's steps taken in regard to the recommendations follow.

#### Recommendations for the Bureau of Export Administration

28. Take the following actions necessary to implement or strengthen the internal controls for ECASS, including:

- (a) Provide a duplicate read-only tape to the Under Secretary for Export Administration every 90 days, highlighting any changes that might be made by lower ranking BXA personnel.

**Status: Closed.** BXA sends backup tapes to the departmental computer center in Springfield, Virginia, on a regular basis. According to BXA and center personnel, the tapes are appropriately safeguarded and available for review, if needed, by the Under Secretary for Export Administration. We believe that BXA's actions meet the intent of our recommendation.

- (b) Establish criteria for reopening closed cases in the system.

**Status: Closed.** BXA decided not to establish criteria for reopening cases because there are too many variables to be considered when reopening a case. However, BXA issued a memorandum reemphasizing that each office must submit a written justification to the Office of Exporter Services (OEXS) for opening a closed case. OEXS informed us it will send back any request that contains insufficient information describing why the case should be reopened. If information describing why a case should be reopened is sufficient, OEXS will determine whether the case

---

<sup>42</sup>Improvements Are Needed to Meet the Export Licensing Requirements of the 21<sup>st</sup> Century, U.S. Department of Commerce Office of Inspector General, IPE-11488, June 1999.

should be reopened based upon the export regulations and specific circumstances. As such, we believe that this action meets the intent of our recommendation.

(c) **Ensure that the electronic audit trail is more complete.**

**Status: Open.** According to BXA, it will institute an improved audit trail in the ECASS 2000+ system. Specifically, audit trails will be maintained in the new system for data modifications, ensuring data integrity by implementing version control for all BXA work items and business entities. However, until these changes are implemented, the recommendation will remain open.

(d) **Have the database administrator assign data element responsibilities to individuals throughout the organization.**

**Status: Open.** BXA acknowledged that this recommendation addresses responsibility and accountability for authorizing access to data elements and thereby ensuring the integrity of the data elements. As such, BXA indicated that it will enforce this internal control in ECASS 2000+ through a role-based permission scheme that ensures access to data by authorized individuals. Until these changes are implemented, the recommendation will remain open.

(e) **Establish an official database review board.**

**Status: Open.** BXA informed us that it plans to officially establish a Milestone Achievement Review Board in the second quarter of fiscal year 2002. In the interim, board members have been proposed and their duties have been enumerated. However, according to BXA, the board will only address issues related to the new ECASS 2000+ system, not the current ECASS system. Given that BXA must rely on its current ECASS system for another four years (until fiscal year 2006), we believe this board should also address issues relevant to the current system as well. Therefore, this recommendation will remain open.

(f) **Establish a standards development group to develop appropriate database standards, including data definition, data documentation, passwords, and writing and testing programs.**

**Status: Open.** Through the design of the ECASS 2000+ system, BXA intends to implement an ongoing configuration management process, including configuration identification, control, status accounting, and auditing. We believe that this action will meet the intent of our recommendation once it is fully implemented.

- (g) **Designate a team to periodically review the internal controls and risks associated with BXA's system, about once a year or when conditions materially change.**

**Status: Closed.** As a part of BXA's new IT security program, BXA completed a risk assessment of the current ECASS system in December 2001. While BXA's actions meet the intent of our recommendation, we want to reiterate the need for BXA to conduct these assessments on an ongoing basis.

- (h) **Require the database administrator to reorganize the database every year.**

**Status: Closed.** BXA personnel informed us that they have and will continue to evaluate the space requirement needs of the existing system. As a result, BXA personnel emphasized that there is no database reorganization that needs to be done at the current time. Within the next few months, BXA's database administrator will determine whether archiving data is necessary and, thus, whether reorganization of the database might be needed. BXA personnel stated that this process will continue as data in the database is archived. We believe that BXA's actions meet the intent of our recommendation.

- (i) **Consider the feasibility of one data entry clerk's work being reviewed by another before it goes into the database, or contract this function out.**

**Status: Closed.** According to BXA, this recommendation would be too costly to implement. More important, BXA believes that a continued increase in on-line applications by users will make this recommendation moot. We cannot confirm that our recommendation would be too costly to implement, but we agree that a continued increase in on-line applications will make our recommendation moot. Since our 1999 review, on-line submission of applications has grown to more than 61 percent. In early 2002, BXA is scheduled to implement improvements to its existing SNAP system, which should increase more on-line applications. As a result, we believe that our recommendation is no longer necessary.

- (j) **Reestablish the old "User Meetings" between the operations staff, licensing officers, and information technology staff to discuss issues and identify and resolve problems quickly.**

**Status: Closed.** BXA has held user meetings as part of the requirements elicitation for the ECASS 2000+ system. In addition, current ECASS users will be accommodated on an as needed basis as issues are identified. We believe that these actions meet the intent of our recommendation.

- (k) **Take steps to reduce the number of duplicate codes in the database, including an extensive archiving effort to retire a large number of duplicate identification numbers.**

**Status: Open.** Although BXA archives records when necessary, the archiving function does not solve the problem of duplicate codes in the database. BXA personnel stated that the manual entry of codes causes duplications in the database. However, BXA informed us that this issue will be addressed in the design of ECASS 2000+. Until this issue is resolved, the recommendation remains open.

- (l) **Update the current continuity of operations plan to include all appropriate manual and system contingency processes as soon as possible.**

**Status: Open.** According to BXA, it plans to issue a revised continuity of operations plan in February 2002. However, BXA personnel emphasized that funding to implement the plan, if needed, has not been available. As such, BXA needs to determine what funding is needed, including whether BXA needs to reallocate existing resources or seek additional funding, if the plan is to be implemented. Until these issues are resolved, the recommendation remains open.

- (m) **Establish a risk management team to identify and assess the severity of risk in BXA's database environment, or have a contractor perform the risk analysis.**

**Status: Closed.** BXA has established a risk management team to identify, track, and mitigate process risks for both ECASS and ECASS 2000+. Furthermore, the ECASS 2000+ project team members completed training on the Software Engineering Institute's Continuous Risk Management program in November 2001. As a result, this recommendation is closed.

- (n) **Send a "network message" to emphasize that all database problems should be reported via the hotline.**

**Status: Closed.** BXA has sent a network message to let users know that they can inform the database administrator of database problems. We believe that this action meets the intent of our recommendation.

- (o) **Prepare a BXA system security plan.**

**Status: Open.** Although BXA has a draft security plan for its current system, it has not been reviewed or approved by BXA management. As a result, BXA lacks a working security plan for ECASS. In addition, we would like to point out that although BXA has not yet prepared its security requirements for ECASS 2000+, it recently hired a contractor to prepare a security plan for the new system in fiscal year 2002. Until BXA management approves the plan for the current system, the recommendation remains open.

- (p) **Perform periodic security reviews.**

**Status: Open.** While BXA has performed partial security reviews of database access controls, it has not performed complete security reviews of its operations. BXA plans to begin performing complete security reviews in September 2002. BXA's action partially meets the intent of our recommendation.

- (q) **Officially assign the security duties of BXA's computer system to BXA's security officer.**

**Status: Closed.** BXA has officially assigned its security responsibilities to an IT Security Officer. In addition, it recently designated an alternate security officer. BXA's actions meet the intent of our recommendation.

- (r) **Provide all ECASS users with current security training.**

**Status: Closed.** BXA has implemented Security Standard Operating Procedures for ECASS users. Each new user is required to read this guide and sign a certificate vouching for that fact. We believe that BXA's action meets the intent of our recommendation.

- (s) **Develop a communication link to immediately notify the Springfield Computer Center of terminated or transferring employees so that system access can be promptly revoked or modified, by the end of each working day.**

**Status: Closed.** BXA has instituted a standard form to be completed when employees leave BXA, which is immediately e-mailed or faxed to the account administrator at the Department's Computer Center in Springfield, Virginia. ECASS access is also a part of the sign-out process when employees leave BXA, ensuring that the ECASS access manager can cancel employee ECASS accounts before they leave BXA. The account administrator at the departmental center stated that BXA is providing the necessary information in a timely manner. We believe that BXA's actions meet the intent of our recommendation.

- (t) **Restrict the number of BXA employees with file manager access.**

**Status: Closed.** BXA has designated—and we agree—three individuals to have file manager access. Specifically, the database administrator and two other technical staff members will perform database operations and backup tasks. We believe that BXA's action meets the intent of our recommendation.

**APPENDIX B**

**List of Acronyms**

BPR	Business Process Reengineering
BXA	Bureau of Export Administration
CIA	Central Intelligence Agency
CIO	Chief Information Officer
CITRB	Commerce Information Technology Review Board
COTS	Commercial-Off-the-Shelf
ECASS	Export Control Automated Support System
EXCON	Export Control System
FORDTIS/TPS	Foreign Disclosure and Technical Information System/ Technology Protection System
GAO	U.S. General Accounting Office
IT	Information Technology
OC	Operating Committee
OEXS	Office of Exporter Services
OIG	Office of Inspector General
OMB	Office of Management and Budget
PINS	Proliferation Information Network System
PKI	Public Key Infrastructure
SNAP/ESD	Simplified Network Application Processing/Electronic Support Documentation System
TECS	Treasury Enforcement Communications System
USXPORTS	U.S. Export Systems
WINPAC	Weapons Intelligence, Nonproliferation, and Arms Control



APPENDIX C

Agency Response



UNITED STATES DEPARTMENT OF COMMERCE  
The Under Secretary for Export Administration  
Washington, D.C. 20230  
January 22, 2002

MEMORANDUM FOR JOENNIE FRAZIER  
INSPECTOR GENERAL

FROM: Kenneth L. Juster *KJ*  
SUBJECT: Response to Draft Inspection Report

The Bureau of Export Administration (BXA) appreciates the opportunity to comment on the Office of Inspector General's draft report entitled, "BXA Needs to Strengthen its ECASS Modernization Efforts to Ensure Long-Term Success of the Project (IPE-14270)." BXA agrees that we have made progress on the ECASS 2000-redesign effort. We have outlined additional actions taken since the conclusion of your study that demonstrate our commitment to ensure the long-term success of our redesign effort.

BXA's comments are included as two attachments to this memorandum: (1) comments on the report's recommendations, and (2) detailed comments on the report text. BXA also has included an Appendix containing additional documentation that was not available prior to the completion of the study.

If you have any further questions concerning BXA's comments, please contact Miriam Cohen, Director of Administration, on (202) 482-1900.

Attachments



**BXA Comments on ECASS 2000+ Report Recommendations**

**Recommendation 1:** Reevaluate and determine, as soon as possible, whether any of the proposed changes outlined in BXA's 1998 Business Process Reengineering (BPR), the USXPORTS BPR, as well as BXA's August 2001 internal licensing task force report, should be factored into the design and requirements for ECASS 2000+.

Agree. This recommendation will be addressed and documented by the ECASS 2000+ User Group that meets on a bi-weekly basis.

**Recommendation 2:** Determine what resources are needed in the short-term (FY's 2002 and 2003) and long-term (FY's 2004 and 2005), how to secure adequate funding levels, and whether it is necessary to extend the project time frame.

Agree. BXA is in the process of obtaining an independent cost estimate based on the proposed multi-year software development plan provided by our integration contractor. In addition, as part of our ongoing dialogue with USXPORTS, we continue to look for ways to share resources and encourage reuse to provide maximum value to the interagency licensing community.

**Recommendation 3:** Ensure that appropriate users, including those from referral agencies, validate the systems requirements for the license subsystem.

Agree. Several referral agencies will participate in the beta testing of the new SNAP system. In addition, BXA will invite these agencies to participate in user requirement validation sessions for the license subsystem. The USXPORTS interagency user's group can facilitate this ongoing dialogue and also provide additional requirements.

**Recommendation 4:** Document security requirements as soon as possible and determine how to fund them, including whether BXA should reallocate existing resources or make them a high funding priority.

BXA has already documented and prioritized security requirements resulting from IT security self assessments and GAO audit results. BXA has implemented a robust IT security action plan in FY 2002 by redirecting existing resources (see Appendix 1). The Office of Management and Budget (OMB) has approved a \$1 million increase for BXA's IT security program in FY 2003.

**Recommendation 5:** Convene a meeting periodically of BXA senior managers, including the Chief Information Officer (CIO), to discuss ECASS 2000+ development efforts, and any anticipated delays or major problems with the project.

Agree. The BXA Information Technology Steering Committee (ITSC) is composed of the Bureau's senior executives, including the CIO. The Committee met twice in October 2001 to approve the multi-year ECASS 2000+ software development plan (See Appendix 2 for a copy of the software development plan). ITSC quarterly meetings are planned to address both ECASS 2000+ and any other information technology issues. In addition, BXA's senior managers receive a one to two page

biweekly update of all major ECASS 2000+ activities. A new ECASS 2000+ Web site will be available to all potential users in February 2002. All project artifacts, including registration/tracking of new requirements, will be available through this website.

**Recommendation 6:** Implement the ECASS 2000+ configuration management process during the second quarter of fiscal year 2002.

Agree. BXA's integration contractor has begun to implement this process using the Rational toolset and will provide web access to all ECASS 2000+ team members in February 2002.

**Recommendation 7:** Implement the ECASS 2000+ risk management process during the second quarter of fiscal year 2002.

Agree. BXA's integration contractor has an active risk management process in place, and will expand through the Rational toolset its availability to all ECASS 2000+ team members in February 2002. This will allow the team to have a central repository to manage all identified risks.

**Recommendation 8:** Ensure that the ECASS 2000+ project team completes the necessary software acquisition training during the second quarter of fiscal year 2002.

Agree. This training was completed in November 2001.

**Recommendation 9:** Revise and approve the program management plan during the second quarter of fiscal year 2002.

Agree. The ECASS Program Manager will revise and approve the program management plan during the second quarter of FY 2002.

**Recommendation 10:** Complete the target architecture and select a location to house BXA's new export licensing automation system during the second quarter of fiscal year 2002 (see page 25).

Agree. Completion of the target architecture is a priority task during the second quarter of this fiscal year. In addition, a Data Center Study is underway, with a final candidate list expected in February 2002. BXA personnel will then schedule site visits, conduct interviews, and make recommendations to management. A final decision can be expected during the third quarter of FY 2002.

**Recommendation 11:** Explore whether Defense could use the ECASS 2000+ licensing subsystem for its export licensing needs.

We have provided the Department of Defense (DOD) with copies of all development products, and we continue to explore the option of DOD using our system for its export licensing needs. However, that decision rests with DOD.

**Recommendation 12:** Work with the dual-use export licensing agencies to develop a central data repository for all data records pertaining to an export license reviewed by these agencies. The subsystem should have appropriate access controls while also allowing the agencies to maintain control of their respective databases.

This work is partially underway, with the Simplified Network Application Process/Electronic Supporting Documentation (SNAP/ESD) project, which is funded by USXPORTS in cooperation with BXA. The technical library will house all supporting documentation associated with an export license as well as requests for additional information from all referral agencies. All referral agencies already have access to ECASS, which will continue with the new ECASS.

The development of more appropriate interfaces to enhance the data flows within agencies and data sharing will be determined by a number of factors, both technical and non-technical.

**Recommendation 13:** Develop a written agreement between BXA and the license referral agencies, including the Departments of Defense, Energy, and State, the Treasury, and the CIA outlining the responsibilities of each party involved in this effort and how best to coordinate the ECASS 2000+ redesign effort with each agency's automation initiatives.

Partially Agree. BXA has a Memorandum of Agreement in place with DOD (USXPORTS) that commits Commerce resources to improve interagency licensing processes through coordination of automation initiatives. Although USXPORTS has attempted to engage all referral agencies, these efforts have not, as yet, been entirely successful. BXA would prefer to build on our working partnership with DOD, through USXPORTS, to achieve the coordination of automation initiatives, rather than execute written agreements separately.

**BXA Detailed Comments on ECASS 2000+ Report Text**

**Page 5**

Fourth paragraph: The sentence should state that BXA electronically transmits validated licensing information to Customs over a dedicated 56K data line.

**Page 6**

Expand last sentence of paragraph to read: During its lifetime, ECASS has been upgraded to permit manual, electronic, and optical character recognition data entry of license applications for export and re-export, commodity classifications, special comprehensive and deemed export licenses, and agriculture license exception notices.

Figure 2 implies that Customs directly uses ECASS subsystems. This is not correct. BXA electronically transmits validated licensing information to Customs over a dedicated 56K data line. Figure 2 also implies that the State Department uses a T-1 line to access ECASS. State accesses ECASS through BXA provided dial-up workstations.

**Page 9**

Findings and Conclusions, First Bullet: It is not clear what is meant by the first bullet which states that we are using the Department's design and development processes. ECASS 2000+ is using industry standard design and development processes, such as Software Acquisition - Capability Maturity Model (SA-CMM) for software acquisition and the Rational Unified Process for software engineering. We are aware of the Department's use of the CMM for architecture, and we are adhering to and assessing our progress in this area, as well as performing annual self-assessments and documenting system development processes per OMB and Clinger-Cohen Act requirements.

**Page 11**

First paragraph, add language as noted: Support documentation also may be faxed to BXA once the exporter has received their Application Control Number (ACN) via SNAP, and BXA has officially accepted their application. Currently, support documentation is scanned into the Multipurpose Archival Records Retrieval System (MARRS) after the application has been completed by the Licensing Officer. SNAP 2002 will eliminate the need to scan documentation at the back-end of the process.

Third paragraph: Additional design peer reviews were held in September and December 2001, respectively. Beta testing will be held for four weeks beginning the week of January 22, 2002, with production scheduled for March 2002.

**Page 18**

First paragraph: The licensing subsystem is part of a multi-year software development plan. The current timing for detailed elaboration and construction of this subsystem is not scheduled until FY 2003; therefore, it seems inaccurate to state that there has been minimal user involvement in

requirements preparation. The same processes cited as adequate for both SNAP/ESD and Investigative Tracking are the same for all subsystems as constructed.

ECASS 2000+ IT security requirements have been specified, albeit at a high-level. Such requirements were not included in detail in the Software Requirements Specification document last December as they represented an initial view based on the team's knowledge at that time. These requirements could not be finalized until: (1) the Department solidified its network infrastructure, and (2) our integration contractor proposed the ECASS 2000+ system software/hardware. In addition, as noted, BXA is completing its target architecture (not just ECASS 2000+) in accordance with Departmental guidance.

Also, security requirements for SNAP have been assessed by the National Security Agency, agreed to by DOD, and are woven into the ECASS 2000+ front-end project. SNAP, the Department's Public Key Infrastructure (PKI) pilot project, will provide secure electronic transactions between industry and BXA.

Page 19

First paragraph, last sentence: Although users are entitled to express their concern about the development of the licensing subsystem requirements, it is not accurate to state that such requirements were developed without their input.

Many high-level requirements were taken from work done in 1998 because key business users said those were still what they wanted. Additional requirements or further refinement of these requirements were gathered through selected interviews. The review of the Software Requirements Document (SRD), published in December 2000 by business users, confirmed the high-level requirements as defined. The level of detail was expanded by several redesign workshops where users both documented the current processes and the "to-be" processes.

Initial use cases (how the system and user are to interact) were drafted by existing ECASS team members based on these sessions, and then turned over to the integration contractor. The integration contractor will, (at the appropriate time) validate with user groups all requirements through detailed-use case reviews in the multi-year development project.

Page 23

Second paragraph: It was the intent from the beginning to use existing ECASS maintenance contractors to help document the high level requirements until an integration contractor was selected. The integration contractor's job is to design, implement, and provide oversight of the redesign project. The last sentence seems to imply that something different was initially planned.

Page 24

Software Acquisition Training: The first sentence should state that all team members have received software development training to enable them to oversee the project. The project manager has had previous experience in this area. The only remaining piece of training not completed at the time of the report was a self-assessment of the software acquisition processes currently in place, and the steps necessary to implement ongoing process improvement. As of January 17, 2002, the training and assessment have been completed.

#### STATUS OF 1999 INTERNAL CONTROL RECOMMENDATIONS

**28 (e) Establish an official database review board.**

**Status:** The Milestone Achievement Review Board will be established to address issues related to the ECASS 2000+ system, not the existing system. Board members have been proposed and their duties enumerated in the ECASS 2000+ Quality Assurance Plan. The Board will become active in the second quarter of FY 2002.

**28 (g) Designate a team to periodically review the internal controls and risks associated with BXA's system, about once a year or when conditions materially change.**

**Status:** BXA completed a risk assessment of the current ECASS system and has provided a copy of its security plan, risk assessment, and risk management plan to the OIG for independent review in December 2001. (Please see Appendix 3)

**28 (l) Update the current continuity of operations plan (COOP) to include all appropriate manual and system contingency processes as soon as possible.**

**Status:** BXA plans to issue its revised COOP in February 2002.

**28 (m) Establish a risk management team to identify and assess the severity of risk in BXA's database environment, or have a contractor perform the risk analysis.**

**Status:** Ongoing process risks have been, and continue to be, identified, tracked, and mitigated for both ECASS and ECASS 2000+. All training has also been completed.

**28 (o) Prepare a BXA system security plan.**

**Status:** As noted above, BXA has completed a security plan for ECASS, which will be reviewed and approved by BXA management as part of the system certification and accreditation package. BXA has a contractor preparing a security plan for ECASS 2000+ during fiscal year 2002.

**28 (p) Perform periodic security reviews.**

**Status:** Please refer to the IT Security Action Plan in Appendix 1 for a schedule of planned security reviews in fiscal year 2002.

**28 (q) Officially assign the security duties of BXA's computer system to BXA's security officer.**

**Status:** BXA has designated an alternate security officer, which was cited as the only uncompleted action for this item.





UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

FOR OFFICIAL USE ONLY

JUN 04 2003

MEMORANDUM FOR: Kenneth I. Juster  
Under Secretary for Industry and Security

FROM: Johnnie E. Frazier *Johnnie Frazier*

SUBJECT: Administrative Matters Concerning BIS' Export Enforcement  
(IPE-15155-2)

During our recent review of the Bureau of Industry and Security's (BIS) efforts to enforce dual-use export controls, issues arose concerning several administrative matters, including the usage of confidential funds by the Office of Export Enforcement (OEE), vehicle usage, and physical security and location of OEE field offices. Because these issues were beyond the scope of our export enforcement review, we did not attempt to thoroughly examine all of their causes and effects. Nonetheless, we think these issues are important enough to bring to your attention for appropriate management consideration and action. We have recently discussed these issues with BIS Deputy Under Secretary Karan Bhatia, Acting Assistant Secretary for Export Enforcement Lisa Prager, and other BIS officials.

Confidential Fund. ☐

FOIA exemptions  
b(2), b(7)(E)

[

b(2)

]

**Table 1: OEE Confidential Fund Activity, 2000-2002**

b(2), b(7)(E)

**Vehicle Usage.** Over the past three years, OEE has spent approximately a half million dollars annually to lease [b(2)] vehicles from a major car rental agency headquartered in New Hampshire.<sup>2</sup> Each OEE field agent is assigned a car that is to be used for official purposes only, including the special allowance for transportation between their home and work.

<sup>2</sup> OEE leasing costs for the past three years are as follows: (a) FY 2000 for \$435,751; (b) FY 2001 for \$547,488; and (c) FY 2002 for \$527,208.

Our review of OEE's vehicle usage disclosed that OEE has too many vehicles. In fact, the number of vehicles leased by OEE at the time of our inspection exceeded the number of agents in OEE field offices. However, according to BIS' vehicle leasing guidance:<sup>3</sup>

- ❖ Requests for all leased vehicles must be approved, as appropriate, by the Deputy Assistant Secretary of Export Enforcement and the Director of Export Enforcement.
- ❖ There must be at least one agent on board for each car leased.
- ❖ Leasing will not be approved for prospective employees.
- ❖ Any full-time position left unfilled for two months shall lose the assigned leased vehicle.

Despite the requirement that there must be at least one designated driver for each vehicle (or not more than a two-month vacancy), our review revealed instances where the number of leased vehicles assigned to the OEE field offices exceeded the number of agents assigned to those offices. [ b(2), b(7)(E)

[ We also noticed similar trends at other field offices visited during our review. When asked about the vehicle surplus, OEE Special Agents-In-Charge and headquarters managers informed us that they were holding onto some of the excess vehicles "in anticipation of new hires."

Using the lowest cost for vehicles leased over the past three years as a baseline, we calculated the cost savings possible if OEE had adhered to the BIS vehicle leasing policy. In FY 2000, the least expensive leased vehicle was \$303 per month [ b(2) ]. In FYs 2001 and 2002, the least expensive leased vehicle was \$361 per month [ b(2) ]. Table 2 documents the minimum potential cost savings for excess OEE-leased vehicles assigned to the 8 field offices over the past three years. Moreover, these estimated cost savings do not include the additional savings possible that would be associated with any parking or maintenance fees paid in connection with the leased vehicles.

**Table 2: Minimum Potential Cost Savings for Excess Leased Vehicles**

Fiscal Year	# of Field Agents	# of Vehicles in the Field*	Difference	Potential Cost Savings Over 12 Months
2000	[ b(2) ]	[ b(2) ]	2	\$ 7,272
2001	[ b(7)(E) ]	[ 1 ]	8	\$34,656
2002	[ 7 ]	[ 7 ]	15	\$64,980
		<b>Total</b>	25	\$106,908

\*This table does not include any excess vehicles that may be assigned to headquarters' units.

Source: Export Enforcement, Bureau of Industry and Security.

Although OEE plans to hire several new agents in the upcoming months, significant savings could have been achieved if unused vehicles were returned to the rental company. While the lease agreement states that the Government has the right to terminate the contract in whole or in part, for its sole convenience, the rental company would be entitled to receive some unspecified

<sup>3</sup> Bureau of Export Administration Vehicle Policy, September 25, 1991.

compensation if BIS had returned the excess vehicles (the lease agreement does not specify what this penalty would have been). Specifically, the contract states that, "Subject to the terms of the contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination."

Therefore, we encourage OEE to follow BIS' vehicle leasing policy and, at a minimum, ensure that there is at least one designated agent on board for each car leased. In addition, BIS should return any excess and/or underutilized leased vehicles to the leasing company.

Physical Security of Field Offices. [

b(2)  
b(7)(E)

[

]

]

**Location of Field Offices.** It is our understanding that BIS requested funding to open two additional offices during FY 2003—a field office in Seattle, Washington, and a satellite office in Houston, Texas. These sites were chosen as proposed OEE office sites because [

b(2), b(7)(E)

]

[

b(2)

□

b(2), b(7)(E)

□ According to the Acting

Assistant Secretary for Export Enforcement, BIS did not receive the requested funding in its FY 2003 budget to open both offices. As such, BIS informed us that it will only open the Houston office this year. While OEE was able to provide a clear, mission-related rationale for the site selection of the proposed new offices, it did not have a similar rationale for the locations of its current eight field offices.

As BIS assesses future locations of OEE field offices, we believe that Export Enforcement should reassess whether the current field office sites remain the most appropriate locations. In doing so, we believe it would be prudent for OEE to apply the criteria it recently established and used for its proposed new offices, including □

b(2), b(7)(E)

□ Obviously, decisions affecting BIS' field office locations must also take into account the full range of related issues, anticipated benefits, and intangible costs.

\*\*\*\*\*

We would appreciate hearing back from you within 60 days as to how BIS intends to address these issues. If you have any questions or would like to discuss these issues further, please contact me on (202) 482-2754.



UNITED STATES DEPARTMENT OF COMMERCE  
Office of Inspector General  
Office of Audits  
ATLANTA REGIONAL OFFICE  
401 W. Peachtree St., N.W. - Suite 2742  
Atlanta, Georgia 30308  
(404) 730-2780  
FAX: (404) 730-2788

August 11, 2003

MEMORANDUM FOR: Michael Sears  
Assistant Inspector General for Auditing

THROUGH: *Larry B. Gross*  
Larry B. Gross  
Deputy Assistant Inspector General for Auditing

FROM: *William F. Bedwell, Jr.*  
William F. Bedwell, Jr.  
Deputy Assistant Inspector General for Regional Audits

SUBJECT: Business and Trade Audits Division  
Economics and Statistics Audits Division  
Science and Technology Audits Division  
Internal Quality Control Review  
Final Audit Report No. DEN-15928-3-0001

I am pleased to transmit the final report for the Internal Quality Review (IQR) of the Business and Trade Audits Division (BTD), the Economics and Statistics Audits Division (ESD), and the Science and Technology Audits Division (STD). The IQR scope was to review each division's compliance with the Government Audit Standards and Office of Inspector General Directives Manual. We found no material non-compliance with the Government Audit Standards or OIG Directives; however, there were three issues requiring additional attention in order to fully comply with OIG Directives.

We noted that one final report issued by ESD did not contain independence declarations for all staff that assisted on the audit, as required by the OIG Directives. In addition, we noted two final reports did not fully comply with OIG Directives regarding referencing substantive changes to audit reports. The agency responses and OIG comments were not referenced for seven others. We also noted that two non-audit report work products were incorrectly classified as audit reports in the Semiannual Report to Congress. We recommended that BTD, ESD, and STD adhere to OIG policies regarding documenting staff independence, and referencing of substantive changes to audit reports. We further recommended that the Office of Audits either exclude non-audit report products from the Semiannual Report or include them in a separate table.

In response to the draft report, the Deputy Assistant Inspector General for Auditing concurred with the recommendations, and provided a responsive action plan.

The draft audit report also contained a finding related to a report issued by BTB for which summaries and schedules were not cross-indexed to the supporting working papers. BTB staff provided documentation indicating that the required cross-indexing had, in fact, been performed. We, therefore, withdrew that draft audit report finding and recommendation.

Attachment

cc (w/att):     Johnnie E. Frazier, Inspector General  
                 Edward Blansitt, Deputy Inspector General  
                 Chuck Tegeler, Director, Economics and Statistics Audits Division  
                 Ron Lieberman, Director, Science and Technology Audits Division

**BUSINESS AND TRADE AUDITS DIVISION  
ECONOMICS AND STATISTICS AUDITS DIVISION  
SCIENCE AND TECHNOLOGY AUDITS DIVISION  
INTERNAL QUALITY REVIEW  
DRAFT REPORT NO. DEN-15928-3-0001**

**INTRODUCTION**

We have reviewed the system of quality control for the audit function of the Business and Trade Audits Division (BTD), the Economics and Statistics Audits Division (ESD), and the Science and Technology Audits Division (STD) in effect for the three years ended March 31, 2003. We conducted our review in conformity with standards and guidelines established by the President's Council on Integrity and Efficiency (PCIE). We tested compliance with each of the three divisions' system of quality control to the extent we considered appropriate. These tests included a review of audits identified in attachment 1.

In performing our review, we have given consideration to the policy statement on quality control and external reviews dated February 2002 issued by the PCIE. That statement indicates that an OIG's quality control policies and procedures should be appropriately comprehensive and suitably designed to provide reasonable assurance that the objectives of quality control will be met. It also recognizes that the nature, extent and formality of an OIG's system of quality control depends on various factors such as the size of the OIG, the location of its offices, the nature of the work and its organizational structure.

In our opinion, the system of quality control for the audit function of the BTD, ESD and STD in effect for the three years ended March 31, 2003, has been designed in accordance with the quality standards established by the PCIE and was being complied with for the year then ended to provide the OIG with reasonable assurance of material compliance with professional auditing standards in the conduct of its audits. Therefore, we are issuing an unqualified opinion on the BTD, ESD and STD systems' of audit quality control.

**PURPOSE, SCOPE AND METHODOLOGY**

We tested compliance with the BTD, ESD and STD systems' of quality control to the extent we considered appropriate. These tests included a review of a sample of audits conducted by the three divisions during the period April 1, 2000 through March 31, 2003. We used the Semiannual Reports to Congress as the basis for determining the audits to review. We selected 12 audit reports listed in the semiannual reports for our review sample, however, one turned out to be an audit termination memorandum and another a non-audit report or product. Therefore, we reviewed 11 audits that produced 10 audit reports and a review memorandum, which we are reporting in the Findings and Recommendations section of this report. We are also reporting on the non-audit product in the Other Matters section of this report.



By division, BTD conducted seven audits during the period and we reviewed four. STD conducted four audits and we reviewed all four. ESD conducted three audits, which produced two audit reports and the audit termination memorandum, and the division produced the non-audit report product. We reviewed all three audits and the non-audit report. A list of the reviewed audits and products is attached.

We also conducted followup reviews of the internal quality control reviews of BTD, ESD and STD, performed by the Bradson Corporation, dated February 18, 2000; March 24, 2000; and January 21, 2000, respectively, and of the external quality control review performed by the U.S. Department of State dated December 22, 2000.

## **FINDINGS AND RECOMMENDATIONS**

We found that BTD, ESD and STD have generally complied with the Government Auditing Standards (GAS) and OIG Directives during our period of review. However, our review identified two non-material findings for which we have recommendations for corrective actions. The findings relate to documenting auditor independence and referencing of audit reports.

### **INDEPENDENCE DECLARATIONS NOT DOCUMENTED IN ONE INSTANCE**

Our review found no evidence of personal or external impairments. However, for one audit (ESD-12593), independence declarations were not included in the working papers for the Atlanta, Denver and Seattle regional office staff that assisted on the audit. OIG Directives Manual, Section 5340 describes policies and procedures for maintaining independence. The manual states that for all audits, each auditor and supervisor is required to complete and sign an Independence Declaration at the beginning of the audit assignment.

#### **Recommendation**

We recommend that the Audit Division Directors require all personnel working on audits to sign independence declarations for each of their assignments.

#### **Response to Finding Regarding Independence Declarations**

The Deputy Assistant Inspector General for Auditing concurs with the draft report finding and recommendation regarding Independence Declarations and has agreed to fully implement the report recommendation. To ensure implementation of the recommendation, he will instruct the division directors to, within the next two weeks:

- Meet with the staffs of the three divisions to discuss the Internal Quality Review and the report recommendation.
- Ensure that all managers and auditors review working papers for assignments currently in process for signed independence declarations for each staff member that worked on the assignment.
- Provide each auditor with a copy of the memorandum containing the DAIGA's response to the draft IQR report.

#### **Reviewer's Comments**

We consider the actions planned adequate to address this recommendation.

## REFERENCING PROBLEMS NOTED

We found that nine of the audit reports reviewed had been issued without having the agency responses or OIG comments referenced, which we consider to be substantive changes from the draft to the final report. The tenth audit report was issued in final without draft; therefore, it did not include an agency response. OIG Directives Manual, Section 5651, states that the referencer is responsible for determining whether opinions, conclusions, and recommendations are reasonable and consistent with, or supported by, the factual material examined. Therefore, we believe that the addition of the agency's response and OIG comments into the final audit report should be referenced. However, because a copy of the agency responses were attached to the final reports, we do not consider this a material weakness. Nor do we consider not having the OIG comments referenced a material weakness due to the number of reviewers in the report processing procedures.

Two of the 10 reports had some other referencing weaknesses. According to the OIG Directives Manual, Section 5651, all draft reports, including any substantive changes made during the clearance process or for the final report, should be referenced. The directives make an exception to the referencing requirement only if relatively few changes are made after referencing that *do not* (sic) affect the factual basis for the report's message, such as changes to improve clarity, tone, and format, in which case the division director can take full responsibility for these changes and note such approval on the referencer's point sheet.

One report (BTD-12650), had substantive changes to questioned costs and refund amounts from the draft to the final report that were not referenced. Our basis for determining that the changes were substantive is that the dollar amount of the costs questioned in the draft report was revised in the final report from \$751,586 to \$597,914 and the refund due the government was changed from \$163,677 to \$121,498. Because the changes were not referenced, we noted a weakness in internal controls over verifying report accuracy.

In another report (ESD-15499), a paragraph was added to the report after it was referenced but the change was not referenced. The lack of referencing was significant because the paragraph contained detailed information summarized from an interview with an agency official, including hiring procedures and selection criteria and it supported the report's conclusion.

OIG Directives Manual, Section 5651, requires that the *OIG/OA Referencing Checklist* be completed for each audit. A checklist step requires the division director to attest to whether all substantive changes after original referencing have been re-referenced. The director attested that subsequent revisions were indexed and referenced; however, the unreferenced paragraph was added 11 days later. Nonetheless, the paragraph was supported by the working papers indexed, therefore we do not consider this to be a material weakness.

## **Recommendation**

We recommend that the Audit Division Directors ensure adherence to the OIG's policy regarding independent report referencing of substantive changes made from the draft to the final reports and substantive changes made after original referencing.

## **Response to Finding Regarding Referencing Final Reports**

The DAIGA concurs with the draft report finding and recommendation regarding referencing final reports. However, he requested that the final IQR report be revised to reflect that at least one of the nine audit reports cited in the draft IQR fully complied with the referencing requirement and that documentation to this effect was provided to the IQR review team.

The DAIGA further states that OIG Directive Manual, Section 5651 was unclear regarding the referencing of agency responses and the OIG comments into the final report. As a result, the established practice for headquarters divisions did not call for the re-referencing of final reports unless the facts or findings changed since the issuance of the draft report.

The revised OIG Audit Directives, effective July 1, 2003, clarifies the language regarding the referencing of final reports by stating in Directive Manual, Number 5610, that the independent referencing of final reports should be limited to narrative text and numerical data that has either been changed from the draft report or added to the final report, including the Agency Response and OIG Comments report sections.

To ensure implementation of the recommendation, the DAIGA will instruct the division directors to, within the next two weeks:

- Meet with their respective staffs to discuss the IQR recommendation.
- Ensure that all managers and auditors review final reports in process for adherence to the OIG's policy regarding independent report referencing of substantive changes made from the draft to the final reports and substantive changes made after original referencing.
- Provide all auditors with a copy of the memorandum containing the DAIGA's response to the draft IQR report.

## **Reviewer's Comments**

We consider the actions planned adequate to address this recommendation. However, we did not find sufficient documentation in the response to revise the number of final reports cited in the IQR as not fully complying with the referencing requirement.

## **OTHER MATTERS**

### **Non-Audit Report Products Misclassified in Semiannual Reports to Congress**

ESD issued two non-audit report products that were incorrectly classified as audit reports in the Semiannual Reports to Congress. The first product (ESD-12593) was an audit termination memorandum and the other (ESD/OIG-14431) was a report summarizing 2000 Census work conducted by various OIG units including audits, inspections, system evaluations, and investigations.

### **Recommendation**

We recommend that the Office of Audits either exclude non-audit products in the Semiannual Report or include them in a separate table for non-audit products.

### **Response to Finding Regarding Non-Audit Report Products Misclassified**

The DAIGA states that all products related to the 2000 Decennial Census were of special interest to the OIG, and the OIG needed a way to publicize that they had been issued. The semiannual was viewed as the best means of doing this. However, in the future, separate tables will be requested for the different OA work products.

### **Reviewer's Comments**

We consider the actions planned adequate to address this recommendation.

Attachment 1

**AUDIT ASSIGNMENTS SELECTED FOR INTERNAL QUALITY REVIEW**

**BUSINESS AND TRADE AUDITS DIVISION:**

**Improved Internal Controls Needed for USPTO's Office of Human Resources**

BTD-12830-0-0001, Final report issued September 2000

**Software and Information Industry Association**

BTD-12650-1-0001, Final report issued March 2001

**Internal Controls for Travel Cards at OAR's Environmental Technology Laboratory Can Be Strengthened**

BTD-14908-2-0001, Final report issued September 2002

**Travel Card Program at National Weather Service Headquarters Needs Additional Management Controls**

BTD-14972-3-0001, Final report issued March 2003

**ECONOMICS AND STATISTICS AUDITS DIVISION:**

**Re-enumeration at Three Local Census Offices in Florida**

ESD-13215-0-0001, Final report issued September 2000

**International Trade Administration's Market Access and Compliance Unit Successfully Recruited for Trade Compliance Positions,**

ESD-15499-3-0001, Final report issued (without draft) March 2003

**Review of Special Population Enumerations and Questionnaire Assistance Centers**

ESD-12593, Termination memorandum issued September 2000

**Improving Our Measure of America: What Census 2000 Can Teach Us in Planning for 2010**

ESD/OIG-14431, Special report issued (non-audit report) Spring 2002

**SCIENCE AND TECHNOLOGY AUDITS DIVISION:**

**Work on Electronic Charting Database Should Be Re-competed**

STD-13440-1-0001, Final report issued March 2001

**Program for Acquiring Fisheries Research Vessels Needs Stronger Management Controls**

STD-14428-2-0001, Final report issued June 2002

**Northwest Fisheries Science Center Needs Improved Research Management Processes to Better Implement Its Salmon Research Plan**

STD-14440-2-0001, Final report issued September 2002

**NOAA's Corporate Costs Process Needs Improvement**

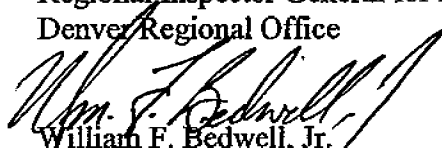
STD-14427-3-0001, Final report issued March 2003

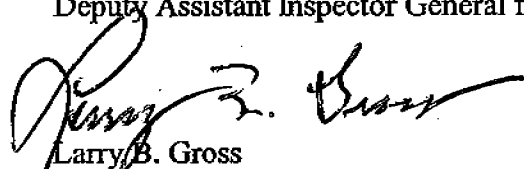


**UNITED STATES DEPARTMENT OF COMMERCE**  
**Office of Inspector General**  
Washington, D.C. 20230

August 7, 2003

MEMORANDUM FOR: John S. Bunting  
Regional Inspector General for Audits  
Denver Regional Office

THROUGH:   
William F. Bedwell, Jr.  
Deputy Assistant Inspector General for Regional Audits

FROM:   
Larry B. Gross  
Deputy Assistant Inspector General for Auditing

SUBJECT: Economics and Statistics Audits Division  
Business and Trade Audits Division  
Science and Technology Audits Division  
Internal Quality Control Review  
Draft Audit Report No. DEN-15928-3-0001

I have reviewed the subject report and, except as discussed below, concur with the recommendations. To ensure implementation of the recommendations, I will instruct the division directors to, within the next two weeks, (1) meet with the staffs of the three divisions to discuss the Internal Quality Review and the report recommendations, (2) instruct all managers and auditors to review reports currently in process and related working papers for compliance with independence declarations, referencing, and cross-indexing requirements, and (3) provide all auditors with a copy of this memorandum.

My specific comments on the findings are as follows:

**Recommendation No. 1:** *Audit Division Directors require all personnel working on audits to sign independence declarations for each of their assignments.*

This condition was found on one audit, ESD-12593. Headquarters auditors assigned to the job had signed independence declarations. However, the three regional assistant inspector generals for audits did not obtain declarations from the staff they later assigned to assist in data collection. Neither the headquarters division director nor the audit manager responsible for the assignment detected this oversight.



To ensure implementation of this recommendation, I will instruct the division directors to:

- Meet with their respective staffs to discuss the IQR report recommendation.
- Ensure that all managers and auditors review working papers for assignments currently in process for signed independence declarations for each staff that worked on the assignment.
- Provide all auditors with a copy of this memorandum.

**Recommendation No. 2:** *Audit Division Directors ensure adherence to the OIG's policy regarding independent report referencing of substantive changes made from the draft to the final reports and substantive changes made after original referencing.*

The audit report states that nine of the audit reports reviewed had been issued without having the agency responses or OIG comments referenced. The tenth audit report was issued in final without a draft report; therefore it did not include an agency response. However, at least one of the nine audit reports (BTD-14972-3-0001, *Travel Card Program at National Weather Service Headquarters Needs Additional Management Controls*) reviewed did have both the agency response and the OIG comments indexed and referenced. Documentation has been provided to the auditors demonstrating this. We request that the final report be revised to recognize that.

OIG Directive Manual, Section 5651, was unclear regarding the referencing of agency responses and the OIG comments into the final report. As a result, the established practice for headquarters divisions did not call for the re-referencing of final reports unless the facts or findings had changed since the issuance of the draft report.

The revised OIG Audit Directives, effective July 1, 2003, clarifies the language regarding referencing final reports by stating in Directive Manual, Number 5610, that the independent referencing of final reports should be limited to narrative text and numerical data that has either been changed from the draft report or added to the final report, including the Agency Response and OIG Comments report sections.

To ensure implementation of this recommendation, I will instruct the division directors to:

- Meet with their respective staffs to discuss the IQR report recommendation.
- Ensure that all managers and auditors review final reports currently in process for adherence to the OIG's policy regarding independent report referencing of substantive changes made from the draft to the final reports and substantive changes made after original referencing.
- Provide all auditors with a copy of this memorandum.

**Recommendation No. 3:** *Audit Division Directors ensure adherence to the OIG's policies of cross-indexing working paper summaries and lead schedules to working paper documentation and having the referencer test the cross indexing.*

The audit report states that, "For one audit (BTD-14972), the report was indexed to working paper summaries and lead schedules but the summaries and schedules were not cross-indexed to supporting working papers.... Furthermore, the problem was not detected by the report referencer...."

We respectfully disagree. The Division Director's review of the working papers' summaries and lead schedules demonstrates adequate cross-indexing to the supporting working papers. Documentation has been provided to the auditor demonstrating this. We request that this finding and recommendation be deleted from the final report.

**Recommendation No. 4:** *The Office of Audits should either exclude non-audit products in the Semiannual Report or include them in a separate table for non-audit products.*

All work products related to the 2000 Decennial Census were of special interest to the OIG, and the OIG needed a way to publicize that they had been issued. The semiannual was viewed as the best means of doing this. However, in the future, separate tables will be requested for the different OA work products.

-----

As described above, I believe these actions fully address the implementation of the Internal Quality Control Review recommendations. I appreciate the thorough and constructive efforts of Randal Skalski, Karen Blechschmidt, Crystal Miller, and Karen Barron on this review.

cc: Chuck Tegeler, Director, Economics and Statistics Audits Division  
Ron Lieberman, Director, Science and Technology Audits Division

# ***BUREAU OF THE CENSUS***

## ***The Census Bureau Should Redefine Its National-Critical Systems***

*Final Inspection Report No. OSE-16519-2*

~~This report is for official use only.~~ It discusses security vulnerabilities and should be protected from unauthorized release. It also may contain information, which must be withheld under exemption (b)(2) of the Freedom of Information Act in order to prevent circumvention of a statute or agency regulation. Therefore, any requests for this report must be directed to the Office of Inspector General

*Office of Systems Evaluation*

Copy \_\_\_\_

MEMORANDUM FOR: Charles Louis Kincannon  
Director  
U.S. Census Bureau

FROM: Johnnie E. Frazier

SUBJECT: *The Census Bureau Should Redefine Its National-Critical Systems*  
Final Inspection Report No. OSE-16519-2

The Federal Information Security Management Act (FISMA)<sup>1</sup> requires agencies to review their information security program annually and Offices of Inspector General (OIGs) to perform independent evaluations of those programs annually as well. Pursuant to FISMA, we evaluated the Census Bureau's information technology (IT) security program and detailed our results in a draft inspection report entitled *Weaknesses in Census Bureau's Certification and Accreditation Process Leave Security of Critical Information Systems in Question*.<sup>2</sup> We are presenting our findings for one of our evaluation objectives separately, in this limited distribution report, because they address the bureau's two highly sensitive national-critical systems—Exemption (b)(2)

That objective was to assess the bureau's consolidation of IT systems to determine whether these systems (and the data they produce) are secure and appropriately certified and accredited.

The bureau's national-critical systems are part of the federal government's critical infrastructure and must therefore be protected from terrorist attacks. The goal is to ensure that any physical or virtual disruption is rare, brief, geographically limited in effect, manageable, and minimally detrimental to the economy, human and government services, and national security of the United States.<sup>3</sup> Under Executive Order 12656, "Assignment of Emergency Preparedness Responsibilities," the Secretary of Commerce is responsible for providing for the collection and reporting of census information on human and economic resources as required for national security emergencies.

---

<sup>1</sup> Title III, E-Government Act of 2002 (P.L. 107-347).

<sup>2</sup> *Weaknesses in Census Bureau's Certification and Accreditation Process Leave Security of Critical Information Systems in Question*, Draft Inspection Report No. OSE-16519, July 2004.

<sup>3</sup> Critical Infrastructure Act of 2001, 42 U.S.C. 5195c, which is part of the USA Patriot Act of 2001 (P.L. 107-56).

As this report details, we found the following:

1. In the event of a terrorist attack or other national security emergency, the Census Bureau's national-critical systems—as currently defined—may not have the capability to perform required processing. Furthermore, national-critical systems maintained by Commerce's Bureau of Economic Analysis (BEA) and the Department of Labor's Bureau of Labor Statistics (BLS) rely on Census Bureau systems that have not been deemed national critical. Not designating as national critical systems needed in an emergency and on which other agencies' national-critical systems depend reduces management's ability to ensure that these systems have adequate security controls. It also disregards the intent of Homeland Security Presidential Directive 7 (HSPD-7), which requires federal agencies to, among other things, coordinate the protection of critical infrastructure and key resources in order to "prevent, deter, and mitigate the effects of deliberate efforts to destroy, incapacitate, or exploit them."
2. The bureau has not designated its national-critical systems as having the highest sensitivity for purposes of certification and accreditation<sup>4</sup> and thus does not test their security controls as rigorously as the Department's IT security policy requires for its most sensitive but unclassified systems.

#### ***Discussion of Census Bureau's Response to the Draft Report***

In the written response to our draft report, you state that you generally agree with the results of our review and discuss our two recommendations. Our first recommendation is that the bureau review the functions required of its national-critical systems, identify all interrelationships with national-critical resources in other agencies, and redefine these systems to encompass all needed processing resources. You indicate that you will establish a formal working group to review the bureau's critical infrastructure plan and those of the other agencies the bureau supports. The review is to include a reassessment of the internal processes needed to support national-critical systems and the criticality of the programs supported by these systems. Recommendations will be made to the Census Bureau's Operating Committee by the end of the fiscal year. We agree that such a reassessment is appropriate.

Noting that the Department's IT security policy sets certification and accreditation levels from 1 to 4, with more rigorous testing required at each successive level, our second recommendation is to certify and accredit all national-critical systems at level 4. You state that you agree that all national-critical systems need to be certified and accredited against rigorous criteria and that you will certify and accredit any new system or process identified as national critical by your reassessment at the appropriate level. However, it is unclear from your response what you consider the appropriate level to be and whether all systems identified as national critical by the reassessment will be certified and accredited at level 4. Given the importance of national-critical systems and the mandate that any physical or virtual disruption must be rare, brief, and

---

<sup>4</sup> Certification is the formal testing of the security safeguards implemented in a computer system to determine whether they meet applicable requirements and specifications. Accreditation is the formal authorization by management for system operation, including an explicit acceptance of risk.

manageable, we continue to believe that all national-critical systems should be certified and accredited at level 4, and therefore reaffirm our recommendation.

Your complete response is included as an attachment to this report. Please provide your action plan addressing the recommendations in our report within 60 calendar days. In addition to actions to reassess the bureau's national-critical systems, the plan should address the timeframes for choosing and implementing appropriate actions resulting from the reassessment, including actions pertaining to certifying and accrediting Census's national-critical systems. Your action plan should be in the form of a plan of action and milestones (POA&M) to facilitate tracking of corrective actions in accordance with the Office of Management and Budget's FISMA guidance. If you have any questions regarding the report or the requested action plan, please contact me on (202) 482-4661 or Judith Gordon, Assistant Inspector General for Systems Evaluation on (202) 482-5643.

## **INTRODUCTION**

Several mandates require the Census Bureau to ensure its critical infrastructure assets, including systems that provide specific data collection and reporting capabilities, are available in the event of a national security emergency. HSPD-7, "Critical Infrastructure Identification, Prioritization, and Protection," dated December 17, 2003, states that all federal department heads are responsible for identifying, prioritizing, assessing, remediating, and protecting their respective internal critical infrastructure and key resources. It further requires agencies to provide information security protections for their critical infrastructures that are consistent with FISMA and commensurate with the risk and magnitude of harm that would result from the unauthorized access, use, disclosure, disruption, modification, or destruction of information. HSPD-7 defines critical infrastructure as "systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national

economic security, national public health or safety, or any combination of those matters."<sup>5</sup> Executive Order 12656, "Assignment of Emergency Preparedness Responsibilities," dated November 18, 1988, charges the Secretary of Commerce with providing for the collection and reporting of census information on human and economic resources and maintaining a capability to conduct emergency surveys to report on the status of these resources as required for national security emergencies.

According to the bureau, at the end of calendar year 2002, it reexamined its IT inventory and determined that—based on the overall mission, organizational structure, and responsibilities of individual directorates—this inventory was not reflective of operations. Census's IT Security Office therefore worked with contractors, system owners, and administrators to reorganize and consolidate the bureau's 87 systems. Grouping systems according to shared missions, ownership, and management yielded 11 program area systems, each having an associated set of component

---

<sup>5</sup> HSPD-7 states that the term "critical infrastructure" has the meaning given to that term in section 1016(e) of the USA Patriot Act of 2001.

systems. Of those 11 systems, the bureau designated 2 as national critical, 7 as mission critical, and 2 as business essential.<sup>6</sup>

The bureau developed security plans for each of the 11 program area systems, as well as the component systems. The program area security plans are intended to document the management, operational, and technical controls that apply to *all* component systems, whereas the security plans for the individual component systems are to describe controls specific to each component.

## OBJECTIVES, SCOPE, AND METHODOLOGY

We conducted a review to evaluate (1) the Census Bureau's information technology (IT) security program policy, (2) the impact of its IT systems consolidation on the integrity of those systems and the certification and accreditation process, (3) its plan to provide specialized IT security training to IT security officers and IT staff, (4) management and implementation of the plan of action and milestones (POA&M) process for program and system level weaknesses,<sup>7</sup> (5) the patch management process for correcting system security vulnerabilities, and (6) the bureau's incorporation of IT security into its capital planning and investment control process. This report presents the findings regarding our second objective, IT systems consolidation. We used HSPD-7, USA Patriot Act of 2001, Executive Order 12656, and FISMA as our criteria for addressing this objective.

We conducted our evaluation in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency and under the authority of the Inspector General Act of 1978, as amended. We performed our fieldwork between November 2003 and April 2004.

## THE BUREAU'S NATIONAL-CRITICAL SYSTEMS COULD LACK CAPABILITIES NEEDED FOR PROCESSING IN AN EMERGENCY AND FOR FULLY SUPPORTING OTHER AGENCIES' NATIONAL-CRITICAL SYSTEMS

As part of their responsibilities for conducting the economic and demographic statistical programs of the bureau, the Office of the Associate Director for Economic Programs and the Office of the Associate Director for Demographic Programs have management, operational, and budgetary authority over the IT systems used to support these programs. Thus, in accordance with FISMA and Department policy, senior officials in these offices are responsible for ensuring the security of these systems. The Office of the Associate Director for Information Technology is to assist them in carrying out their IT security responsibilities. In consolidating its systems, the bureau designated two economic and demographic systems as national critical—Exemption (b)(2)

<sup>6</sup> According to OMB, an infrastructure or resource is considered mission critical if its damage or destruction would have a debilitating impact on the organization's ability to perform essential functions and activities. All systems that are not mission critical or national critical are considered business essential.

<sup>7</sup> According to OMB, POA&Ms must reflect all known security weaknesses within an agency including its components or bureaus and shall be used by the agency, major components and program officials, and the IG as the authoritative agency management mechanism to prioritize, track, and manage all agency efforts to close security performance gaps.

Exemption (b)(2) (See table 1 for a listing of the systems discussed in this report, along with their identifiers and criticality.)

Table 1. Systems Discussed in This Report

Exemption (b)(2)



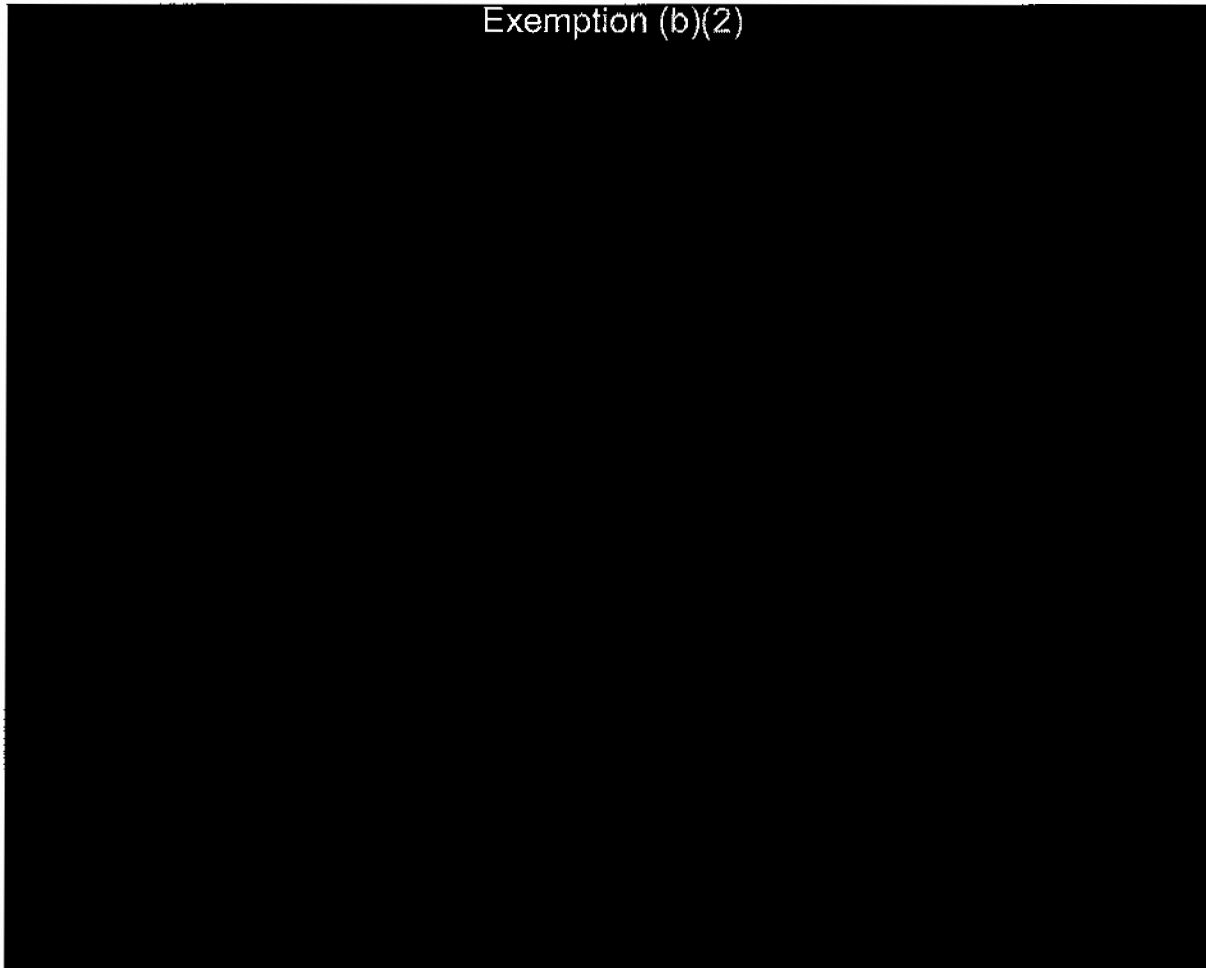
However, the bureau defined the two national-critical systems very narrowly—as a set of computing resources incapable of performing all of the processing required in an emergency without relying on other bureau systems that are not deemed national critical. Additionally, (b)(2) provides the primary data used by BEA to produce the gross domestic product (GDP), a principal economic indicator. Although the GDP and the system BEA uses to produce it, (b)(2) are national critical, the system heavily relies on Census Bureau systems that have not been designated as national critical. (b)(2) provides essential data used by BLS to produce principal economic indicators on the labor force, employment, and unemployment, classified by a variety of demographic, social, and economic characteristics. Derived from the Current Population Survey (CPS), a monthly survey conducted by the bureau for BLS, these indicators and the system BLS uses for developing them are considered national critical. Like BEA, BLS must heavily rely on bureau systems not deemed national critical.

The relationship among the systems needed to conduct economic surveys is illustrated in figure 1. (b)(2) includes a component system, the Exemption (b)(2), that contains information about domestic companies and the goods and services they provide. The Exemption (b)(2) component system of the Exemption (b)(2) both provides input to the Exemption (b)(2) and uses (b)(2) information to generate data that



BEA's Exemption (b)(2) system uses in developing the GDP. As noted previously and shown in figure 1, (b)(2) and BEA's system are both national critical. However, (b)(2) has been designated only mission critical, even though this system processes data from the (b)(2) to produce economic survey results for Census and information for BEA's national-critical system. Furthermore, the Exemption (b)(2), which supports Exemption (b)(2), is a component Exemption (b)(2), which has not been designated as national critical either.

**Figure 1. National Critical and Related Systems for Producing Principal Economic Indicators**



In addition to what is shown in figure 1, component systems of the Exemption (b)(2) also support (b)(2) and are needed to perform economic surveys and processing. Like Exemption (b)(2), (b)(2) is designated as mission critical, not national critical. Similarly, Exemption (b)(2), as well as BLS, depend on processing resources in Exemption (b)(2)—all mission-critical systems.

The rationale provided by bureau officials for the definition of national-critical systems was that the scheduled economic indicators and demographic surveys could be discontinued for a short period of time if an event occurred, but the event's economic or demographic impacts may have to be assessed. They maintained that the needed data for such assessments reside in the components designated as national critical, and any additional processing resources required for analyzing and transmitting the data could be recreated if they were not available. However, given the executive order's requirement to maintain the capability to collect as well as analyze data in an emergency and the dependence of other agencies' national-critical systems on bureau systems, a more comprehensive definition of the bureau's economic and demographic computing resources is needed. Not designating as national critical computing resources needed in an emergency and on which other agencies' national-critical systems depend reduces management's ability to ensure that these resources have adequate security controls and disregards the intent of HSPD-7, which states, "Federal departments and agencies will identify, prioritize, and coordinate the protection of critical infrastructure and key resources in order to prevent, deter, and mitigate the effects of deliberate efforts to destroy, incapacitate, or exploit them."

HSPD-7 requires the Department to develop and submit for OMB approval, plans for protecting its physical and cyber-critical infrastructure by July 31, 2004. The Department CIO will prepare this plan using input from the operating units. To ensure that the bureau's national-critical resources are appropriately identified in the plan and adequately protected, the functions the bureau's national-critical systems may have to perform in an emergency should be reviewed, all interrelationships with national-critical resources in other agencies identified, and these systems redefined to encompass all needed processing resources.

#### **Recommendation**

The director of the Census Bureau should ensure that the associate director for economic programs and the associate director for demographic programs, with support from the bureau's CIO, review the functions required of the bureau's national-critical systems, identify all interrelationships with national-critical resources in other agencies, and redefine these systems to encompass all needed processing resources.

#### **CERTIFICATION AND ACCREDITATION LEVELS FOR NATIONAL-CRITICAL SYSTEMS ARE NOT COMMENSURATE WITH THEIR SENSITIVITY**

FISMA sets three security objectives for information and information systems: *confidentiality*, *integrity*, and *availability*. System owners must assign a sensitivity level of high, medium, or low to each objective to reflect the impact on the agency's mission that would result if the information or system were compromised. The sensitivity assignments are used to establish the system's security controls and provide the basis for determining its certification and accreditation level; this level, in turn, dictates the rigor of certification testing. The Department's IT security policy sets certification and accreditation levels from 1 to 4, with more rigorous testing required at each successive level.

Although all of the bureau systems discussed in this report—~~Exemption (b)(2)~~—were designated “high” for confidentiality, integrity, and availability, (b)(2) was certified and accredited at level 3 and the remaining systems, including those that are national critical, were certified and accredited at level 2. Given the importance of the bureau’s national-critical systems and the mandate that any physical or virtual disruption must be rare, brief, and manageable, these systems should be designated as level 4 for certification and accreditation purposes to ensure their security controls receive the most rigorous testing. Census Bureau systems used to produce principal economic indicators have significant commercial value, may affect the movement of commodity and financial markets, may be taken as a measure of the impact of government policies, and many indicators are based on confidential data voluntarily provided by businesses, which also must be protected. Thus, even if the systems used to produce the indicators were not national critical, they would still need to be subjected to thorough testing.

### Recommendation

The director of the Census Bureau should ensure that the associate director for economic programs and the associate director for demographic programs, with support from the bureau’s CIO, certify and accredit all national-critical systems at level 4.

### Attachment

cc: Kathleen B. Cooper, Under Secretary for Economic Affairs  
Hermann Habermann, Deputy Director and Chief Operating Officer, U.S. Census Bureau  
Nancy M. Gordon, Associate Director for Demographic Programs, U.S. Census Bureau  
Frederick T. Knickerbocker, Associate Director for Economic Programs, U.S. Census Bureau  
Richard W. Swartz, Associate Director for Information Technology and Chief Information Officer, U.S. Census Bureau  
Timothy P. Ruland, Information Technology Security Officer, U.S. Census Bureau  
Thomas N. Pyke, Jr., Chief Information Officer, U.S. Department of Commerce  
Otto J. Wolff, Chief Financial Officer and Assistant Secretary for Administration, U.S. Department of Commerce



ATTACHMENT

**UNITED STATES DEPARTMENT OF COMMERCE**  
**Economics and Statistics Administration**  
**U.S. Census Bureau**  
Washington, DC 20233-0001  
OFFICE OF THE DIRECTOR

JUL 28 2004

MEMORANDUM FOR: Judith J. Gordon  
Assistant Inspector General for  
Systems Evaluation

Through: Kathleen B. Cooper *Kathleen B Cooper*  
Under Secretary for Economic Affairs

From: Charles Louis Kincannon *CKincannon*  
Director

Subject: *The Census Bureau Should Redefine Its National-Critical Systems,*  
Draft Inspection Report No. OSE-16519-2

This is in response to your memorandum of July 12, 2004, transmitting the above-referenced audit report. We appreciate the efforts of the Department of Commerce's Office of Inspector General staff in conducting this review and generally agree with their results. We address the recommendations in the report as follows:

**Recommendation 1:** The Director of the Census Bureau should ensure that the Associate Director for Economic Programs and the Associate Director for Demographic Programs, with support from the Bureau's CIO, review the functions required of the Bureau's national-critical systems, identify all interrelationships with national-critical resources in other agencies, and redefine these systems to encompass all needed processing resources.

**Census Bureau Response:** The U.S. Census Bureau will establish a formal working group, chaired by the Chief, Information Technology (IT) Security Office, and consisting of members from the economic, demographic, IT, and field directorates. The working group will identify internal processes needed to support our national-critical systems, establish a central repository of all support provided to other agencies in the IT Security Office and identify the criticality of these programs as reported in the Census Bureau Critical Infrastructure Plan (CIP), as well as those of the supported agencies to ensure consistency. The working group will present their recommendations to the Census Bureau's Operating Committee for consideration.

The Census Bureau has already begun work on the first phase of this effort. A memorandum from the Chief, IT Security Office, to the CIO, dated July 6, 2004, identified the requirements of HSPD-7 and recommended that based on the information gained during your inspection, the Census Bureau must re-evaluate our CIP to address the recommendation. This correspondence was shared with the associate directors for the economic and demographic areas, as well as key management officials within the IT directorate.

USCENSUSBUREAU

*Helping You Make Informed Decisions*

[www.census.gov](http://www.census.gov)

The Census Bureau takes the security of the data collected very seriously. Internal processes and procedures are continually reviewed to ensure that the appropriate levels of control needed to meet the growing security challenges are in place. Due to the complexity of our network infrastructure and the number of other agencies supported by the Census Bureau data collection efforts, it will take until the end of the fiscal year before the working group can present their recommendations to the Census Bureau Operating Committee. The Census Bureau Operating Committee will then begin to determine the impact of implementing the results of the findings as phase two of this process.

**Recommendation 2:** The Director of the Census Bureau should ensure that the Associate Director for Economic Programs and the Associate Director for Demographic Programs, with support from the Bureau's CIO, certify and accredit all national-critical systems at level 4.

**Census Bureau Response:** The Census Bureau agrees that all national-critical systems need to be certified and accredited against rigorous criteria. Any new system or process identified as national-critical, following the review cited in the first recommendation, will be certified and accredited at the appropriate level.

cc: US/EA

**U.S. DEPARTMENT OF COMMERCE**  
**Office of Inspector General**

---



~~**FOR OFFICIAL USE ONLY**~~

**OFFICE OF THE SECRETARY**

*Commerce Should Ensure That Travelers to  
China Receive Counterintelligence Briefings*

*Final Report No. IPE-17954/July 2006*

*Appendix E to Final Inspection Report: CS China  
Generally Performs Well But Opportunities Exist for  
Commerce to Better Coordinate Its Multiple China  
Operations (IPE-17546), issued March 2006.*

*Office of Inspections and Program Evaluations*



***NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION***

***Additional Steps Are Necessary to  
Provide Better Oversight of  
Contractor Information Security***

*Final Inspection Report No. OSE-18028/September 2006*

***Office of Systems Evaluation***

SEP 29 2006



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

**MEMORANDUM FOR:** Conrad C. Lautenbacher, Jr.,  
Undersecretary of Commerce for Oceans and Atmosphere and  
NOAA Administrator

Otto J. Wolff  
Chief Financial Officer and Assistant Secretary for  
Administration

John J. Kelly, Jr.  
Deputy Undersecretary of Commerce for Oceans and  
Atmosphere

Barry C. West  
Chief Information Officer

**FROM:**

Johnnie E. Frazier

**SUBJECT:**

*Additional Steps Are Necessary to Provide Better Oversight of  
Contractor Information Security*  
Final Inspection Report No. OSE-18028

This memorandum transmits our final report evaluating IT security in NOAA contracts. The objectives of our evaluation were to determine whether the required IT security clauses have been incorporated into IT service contracts and to assess the implementation of the clause requirements. Because some problematic aspects of the clauses contributed to issues we identified at NOAA and at USPTO in a previous review, our report identifies recommendations for the Department as well as NOAA. For the Department the evaluation identified improvements needed to the IT security clause and the Commerce Acquisition Manual as well as the need for developing additional guidance to aid contracting officers and contracting officer representatives in their oversight of contractor information security. For NOAA we identified improvements needed for ensuring the certification and accreditation of contractor IT resources. Your written responses to our draft report indicate that you agreed with our findings, and outline actions for addressing the recommendations.

We request that NOAA provide an action plan addressing the recommendations in our report within 60 calendar days. The action plan should be in the form of a plan of action and milestones (POA&M) to facilitate tracking of corrective actions in accordance with OMB's FISMA guidance.





We are not requesting a POA&M from the Department because the Director of Acquisition Management and Procurement Executive issued Procurement Memorandum 2006-06 and Commerce Acquisition Manual Notice 06-05 on September 27, 2006. These work products are identified as the Department's action items in its response to this report. A review of them is beyond the scope of this report, but we look forward to follow-up discussions in the near future.

If you have any questions regarding the report or the requested action plan, please contact me on (202) 482-4661 or Judith Gordon, Assistant Inspector General for Systems Evaluation, on (202) 482-5643.

We appreciate the cooperation and courtesies extended to us by your staffs during our evaluation.

Attachment

cc: Michael Sade, Director, Acquisition Management and Procurement Executive, U.S.  
Department of Commerce  
William Lay, Director, IT Security, Infrastructure, and Technology, U.S. Department of  
Commerce, Office of the Chief Information Officer  
Helen Hurcombe, Director, NOAA Acquisition and Grants Office  
Carl Staton, Chief Information Officer, National Oceanic and Atmospheric Administration

## CONTENTS

Executive Summary .....	i
Introduction.....	1
Objectives, Scope, and Methodology .....	4
Findings and Recommendations .....	6
I. Scope and Content of Clause 73 Should Be Revised.....	6
II. NOAA Is Not Ensuring that Contractor IT Resources Are Certified and Accredited.....	10
III. Guidance for Applying Clause 73 Should Be Developed to Improve Planning and Implementation of Contractor C&A Requirements .....	13
IV. NOAA Is Implementing Clause 74, but the Department Should Update the Commerce Acquisition Manual .....	16
Appendixes:	
Appendix A: IT Security Clauses .....	A-1
Appendix B: Department's Response.....	B-1
Appendix C: NOAA's Response .....	C-1

## EXECUTIVE SUMMARY

The Federal Information Security Management Act (FISMA) requires agencies to develop and implement programs to protect government information and information technology (IT) systems. With the government's growing reliance on contractors for services, agencies need to perform careful oversight of contractors' information security to avoid misuse of government information or disruption to government IT systems and operations. For this reason, the Department of Commerce established two information security contract clauses. Clause 73 requires contractors to comply with the Department's IT security policy and have their IT resources certified and accredited if they connect to a Commerce network<sup>1</sup> or process or store government information. Clause 74 requires contractor personnel to undergo appropriate background screening and IT security awareness training.

We conducted our evaluation to determine whether the National Oceanic and Atmospheric Administration is incorporating the two information security clauses into contracts and to evaluate implementation of the clause requirements. Our review included a judgmental sample of 16 NOAA service contracts and interviews of managers and staff from NOAA's Office of Acquisition and Grants, Office of the Chief Information Officer, and line offices. Because some problematic aspects of the clauses contributed to issues we identified at NOAA and, in a previous review at USPTO, we have made recommendations to Departmental officials, in addition to NOAA.

Our findings are summarized as follows.

### **Scope and Content of Clause 73 Should Be Revised**

Although federal information security requirements should apply whenever a contractor has access to government information or government IT systems, some NOAA officials and contractors incorrectly interpret Clause 73 as applying only to IT service contracts. Some reasons for this are that Clause 73 is outdated and contains ambiguous phrases that are interpreted in various ways. To improve implementation and oversight of IT security on contracts, Clause 73 should be revised to remove unnecessary and outdated phrases and make it consistent with FISMA, OMB guidance, and recent NIST standards. (See page 6.)

### **NOAA Is Not Ensuring that Contractor IT Resources Are Certified and Accredited**

Seven of the 16 contracts in our sample required certification and accreditation, but only 2 had fulfilled the requirement. C&A had not been performed in the other five instances because NOAA either did not recognize it was required or, if the need was recognized, did not follow through to complete the C&A. The remaining nine contracts did not require C&A of contractor IT resources because the place of performance was a NOAA facility and the contractors used government IT resources. (See page 10.)

<sup>1</sup> C&A is required if the connections is to a trusted government network. Trusted networks are the networks inside an organization's network security perimeter, with the exception of virtual private networks (VPNs). These networks are the ones the organization is trying to protect. CISCO Systems Glossary.  
<http://www.cisco.com/univercd/cc/td/doc/product/iaabu/centri4/user/scf4glo.htm> (accessed June 13, 2006).

## **Guidance for Applying Clause 73 Should Be Developed to Improve Planning and Implementation of Contractor C&A Requirements**

The deficiencies in NOAA's implementation of Clause 73 stem, in part, from misunderstandings of the clause's requirements by acquisition, program, and IT security personnel regarding the types of contracts to which the clause applies and the conditions requiring C&A of contractor IT resources. While revising Clause 73 should go a long way toward addressing this issue, developing guidance that assists in resolving four key issues in the acquisition planning stage should further facilitate its proper application and oversight. These issues are: (1) whether Clause 73 applies, (2) which Clause 73 requirements apply, (3) the C&A level of effort, and (4) who will perform the various C&A activities. (See page 13.)

## **NOAA Is Implementing Clause 74, but the Department Should Update the Commerce Acquisition Manual**

Contractor personnel are generally receiving IT security awareness training prior to being granted access to NOAA IT resources. Contracting officer representatives are determining contract risk levels, and contractor personnel are receiving background investigations commensurate with those risk levels as required by Clause 74. However, the risk levels were not documented in contracts or identified in contract files, making it difficult to determine whether the appropriate risk level had been assigned. In addition, the Commerce Acquisition Manual (CAM) section on determining contract risk levels (1337.70) needs to be updated to reflect the Department's revised IT security policy and updated National Institute of Standards and Technology (NIST) IT security guidance. (See page 16.)

## **Recommendations to NOAA and the Department**

Our recommendations to the Undersecretary of Commerce for Oceans and Atmosphere and NOAA Administrator primarily address improving the certification and accreditation of contractor IT resources that are either connected to a NOAA trusted network or allow privileged access to government information. Our recommendations to the Department's Chief Financial Officer and Chief Information Officer, address the need to update Clause 73 and the CAM to be consistent with the Department's IT security policy and NIST standards and guidance. The Department also needs to clarify to which contracts Clause 73 applies and provide additional guidance to assist contracting officers, contracting officer representatives, and IT security officers in implementing information security for contractor IT resources.

In response to our draft report, both the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA) and NOAA concurred with our findings and outlined corrective actions planned or underway for each recommendation. We synopsized their responses following the recommendations for each finding. (See pp. 9, 12, 15, and 16.) The separate responses submitted by the CFO/ASA and NOAA are included as appendixes to this report. We note that in response to our recommendations, the Director for Acquisition Management and Procurement Executive issued Procurement Memorandum 2006-06, *Information Security in Acquisitions* on

September 26, 2006. The memorandum directs Heads of Contracting Offices to take various actions, and contains the "Information Security in Acquisition Checklist," a flowchart of key decisions, and a revised Clause 73. Revisions to the CAM to address policy changes were also issued. An evaluation of these work products is beyond the scope of this report.

## INTRODUCTION

Charged with predicting changes in the Earth's environment and managing coastal and marine resources to meet the nation's economic, social, and environmental needs, the National Oceanic and Atmospheric Administration is the largest bureau of the Department of Commerce. To fulfill its mission, NOAA needs a great deal of complex technology, from local- and wide-area office networks to multi-billion dollar satellite systems.

Like other government agencies, NOAA and its operating units must increasingly rely on outside contractors to provide both technology and services. But using contractors to fulfill its mission increases risks to government information and information technology (IT) systems. Contractors must frequently use their IT resources to process or store NOAA information or may connect to NOAA networks. The *Security Guide for Interconnecting IT Systems* (NIST SP 800-47) explains that if a connection is not properly designed, security failures could compromise the connected systems and the data that they store, process, or transmit. Similarly, if one system is compromised, the connection could be used to impair other systems and data. In most such cases, participating organizations have little or no control over the operation and management of the other's systems.

To secure and protect its computer systems, NOAA must follow both federal legislation and policy and the Department's IT security policy. The Department's policy requires

- Commerce officials to authorize all contractor systems used to process, store, or transmit Commerce information;
- the management approach of NIST SP 800-47 be followed to secure interconnections to Department networks, and
- interconnection security agreements to be included in the Commerce system's certification and accreditation (C&A) package. Interconnection security agreements specify the technical and security requirements of the connections as well as the responsibilities of each organization.

The Federal Information Security Management Act (FISMA) requires agencies to develop and implement programs to protect information and IT systems. Because contractor activities could cause serious problems, such as unauthorized modifications, loss, or disclosure of government information; introduction of malicious software; disruption to government operations by system failures or denial of access, FISMA reporting instructions issued by the Office of Management and Budget (OMB) in FY 2005 emphasized that contractors' security procedures must be "identical, not equivalent" to those of federal agencies.

FISMA also requires agencies to review their information security program annually and offices of inspectors general (OIGs) to independently evaluate agency information security programs as well.

In May 2002, an OIG report found Commerce contracts frequently lacked adequate security provisions and called for IT security clauses to be included.<sup>1</sup> In response to that report, the Department's Office of Acquisition Management and Financial Assistance (OAMFA) issued two contract clauses in 2003. (To read actual text of the clauses, please see appendix.) To fulfill our charge under FISMA's requirements, we undertook this review of NOAA's program to determine whether the agency incorporates the Department's required IT security clauses in contracts and how the security requirements established by the clauses are implemented.

OAMFA directed contracting officers to incorporate clauses 73 and 74 into all new service contracts, as well as all applicable existing contracts. Clause 73 (*Security Requirements for Information Technology Resources*-Commerce Acquisition Regulations (CAR) 1352.239-73) requires contractors to comply with the Department's security policy and, if applicable, to certify and accredit their IT resources. The Department's IT security policy requires the C&A package to include an IT system security plan, risk assessment, security test and evaluation reports, a plan of action and milestones, if required, and the certification work plan. The contracting officer, in consultation with the IT security officer, must approve or reject the C&A package.

Certification is the formal testing of an information system's security controls to determine if they are implemented correctly, operating as intended, and producing the desired outcome. With this information, agencies can decide, based on risk, how best to minimize the potential for disruption of services. Accreditation is management's formal authorization to allow a system to operate and acceptance of the remaining system vulnerabilities. The Department's information security policy requires all contractor systems used to process, store, or transmit Commerce information to be certified and accredited, with the level of effort commensurate with the system impact level. Each agency is required to categorize its information systems as high, moderate, or low based on the potential impact should certain events occur that jeopardize the information and information systems needed to accomplish its assigned mission, protect its assets, fulfill its legal responsibilities, maintain its day-to-day functions, and protect individuals.

The second clause, Clause 74 (*Security Processing Requirements for Contractors/Subcontractor Personnel for Accessing DOC Information Technology*-CAR 1352.239-74) requires all contractor personnel be designated by a contract risk level to define the appropriate background screening and to have IT security awareness training. OAMFA developed an on-line course, *Effectively Integrating Information Technology (IT) Security into the Acquisition Process*, to help explain the requirements. NOAA's Office of Acquisition and Grants also issued a desk reference, *IT Security Requirements for Contracting Officials and Contracting Officer Representatives*.

---

<sup>1</sup> U. S. Department of Commerce, Office of Inspector General, May 2002, *Information Security Requirements Need To be Included in the Department's Information Technology Service Contracts*. Report No. OSE-14788. A subsequent OIG evaluation found that the Department had made progress in incorporating the new IT security clauses into contracts, but provisions for controlling contractor access to Department systems and networks were generally absent, and there was little evidence of contract oversight or of coordination among contracting, technical, and information security personnel. (U.S. Department of Commerce Office of Inspector General, September 2004, *Office of The Secretary: Information Security in Information Technology Security Contracts Is Improving, but Additional Efforts Are Needed*, Report No. OSE-16513.)

As shown in the box below, various NOAA offices and personnel contribute to safeguarding NOAA information and systems from possible contractor risks.

***Roles and Responsibilities***

The following offices contribute to safeguarding NOAA information and systems from possible contractor risks:

**Office of Acquisition and Grants/Contracting Officers**

- Authority to enter into, and modify, contracts.
- Responsible for contractor compliance with contract terms and safeguarding NOAA interests in procurements.
- Appoint contracting officer representatives

**Line Office Personnel**

- Serve as contracting officer representatives.
- Determine security characterization of information or information systems under their control.
- Define contract requirements, which determine contract risk designation and whether certification and accreditation of contractor IT system is required.
- Monitor performance of the contract.
- Senior manager serves as authorizing official for the accreditation of contractor systems.

**Office of the Chief Information Officer and High-Performance Computing and Communications**

- Oversees NOAA-wide operational systems and IT services.
- CIO serves as the authorizing official for NOAA-wide systems and exercises NOAA-wide leadership of the information security program through the NOAA IT security office.
- Serve as contracting officer representatives for NOAA-wide IT contracts.

**Office of the Chief Information Officer and High Performance Computing and Communications/IT Security Program Office**

- Implements the IT security program to safeguard NOAA information and systems.
- Provides IT security guidance and technical assistance.

**Department Office of Security at NOAA**

- Processes employee and contractor personnel suitability and security clearances.



## OBJECTIVES, SCOPE, AND METHODOLOGY

We set out to determine whether NOAA incorporates the Department's required IT security clauses in contracts and how the security requirements established by the clauses are implemented. We initially intended our scope to be IT service contracts, with an emphasis on contracts that may require a connection between contractor systems and a NOAA trusted network<sup>2</sup> or contractor systems that are used to process or store NOAA information. We expanded our scope to include a management services contract and a Cooperative Research and Development Agreement (CRADA) that was converted to a service contract to address issues concerning the applicability of the clause that arose during our review.

We selected a judgmental sample of 16 contracts (See Table 1) from listings provided by NOAA and the Department. The sample included recently awarded contracts as well as several contracts that were awarded before use of the clauses became mandatory.

We conducted interviews with managers and staff from the Office of Acquisition and Grants, OCIO-ITSO, and line offices. Our evaluation criteria included contract clauses 73 and 74, OMB FISMA reporting instructions, Commerce's *IT Security Program Policy and Minimum Implementation Standards*, OMB Circular A-130, *Management of Federal Information Resources*, NIST Federal Information Processing Standard (FIPS) 199, *Standards for Security*

**Table 1. Contract Sample**

Contract Description	Number of Contracts	Estimated Value (in \$ thousands)
National Fishing Permit and Landings Reporting System	1	549
Advanced Weather Information Processing System	1	300,000
High Performance Computing System for weather forecasting	1	224,400
IT security consulting and testing	2	507 14
Marine Sanctuary Program support	1	4,500
NOAA computer incident response team	1	1,221
Development of snow fall data	1	342
Radiosonde system support	1	4,500
Web-based portal development	1	220
IT support for Damage and Restoration Program	1	2,400
Support for Open Radar Data Acquisition software and equipment development	1	28,000
Developing and maintaining hydrometeorological applications	1	8,000
NOAA network operations center support	1	2,659
Chart production composition and quality control services	1	1,521
Document-based whaling data	1	27
<b>Total Estimated Value \$578,460</b>		
Source: Estimated values are for the life of contract and are obtained from contract files and publicly available documentation.		

<sup>2</sup> Trusted networks are the networks inside an organization's network security perimeter, with the exception of virtual private networks (VPNs). These networks are the ones the organization is trying to protect. CISCO Systems Glossary. <http://www.cisco.com/univercd/cc/td/doc/product/iaabu/centri4/user/scf4glo.htm> (accessed June 13, 2006).

*Categorization of Federal Information and Information Systems, and NIST Special Publications (SP)*

- SP-800-60, *Guide for Mapping Types of Information and Information Systems to Security Categories*,
- SP 800-53, *Recommended Security Controls for Federal Information Systems*, and
- SP 800-47, *Security Guide for Interconnecting IT Systems*.

We conducted our evaluation in accordance with the Inspector General Act of 1978, as amended, and the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency in January 2005. We performed our fieldwork between August 2005 and February 2006. In addition to our fieldwork at NOAA, we were in consultation with the Department's CIO and OAMFA on the clauses and their implementation through the spring of 2006.

## FINDINGS AND RECOMMENDATIONS

### I. Scope and Content of Clause 73 Should Be Revised

According to FISMA, OMB, and the Department's IT security policy, federal information security procedures should apply if a contractor has access to government information or government IT systems, regardless of the contract type or the services acquired. In FY 2005, OMB's FISMA guidance stated, "agency IT security programs apply to all organizations which possess or use Federal information..." Consistent with this, the Department's IT security policy "applies to desktop PC workstations, laptop computers and other portable devices, servers, network devices . . . whether or not they are DOC-owned or leased or contractor-owned and operated on behalf of DOC."

The language in Clause 73 is outdated because it does not reflect FISMA's charge to provide some level of protection for all government information. Subsection (a) of the clause reads:

*This clause applies to contracts that include information technology resources or services in which the Contractor must have physical or electronic access to Commerce sensitive or classified information, which is contained in systems that directly support the mission of the agency.*

FISMA and NIST standards do not limit the application of federal information security procedures to "sensitive information" or information "contained in systems that directly support the mission of the agency." OMB FISMA guidance has repeatedly stated that federal information security requirements apply to any organization—including federal assistance recipients or contractors—that has access to government information. With the recent updates to NIST's IT security standards and guidance, the federal government is relying less on the term *sensitive information*, and instead, using *impact level* to define levels of protection for government information and information systems. In particular, FIPS Publication 199, *Standards for Security Categorization of Federal Information and Information Systems*, defines three levels of potential impact (high, medium, and low) on organizations or individuals in the event of a security breach. Revising Clause 73 to eliminate outdated phrases should improve decision making regarding whether the clause applies to a particular contract and maintain consistency with FISMA, NIST standards, and Commerce IT security policy.

Additionally, revision to Clause 73 should address misconceptions on the types of contracts to which federal information security requirements apply. Certain phrases in subsection (a) of Clause 73 have been understood differently by some NOAA personnel we interviewed. For example, we were told that it was not clear that Clause 73 applied to service contracts because the phrase "contracts that include IT resources or services" means contracts in which the government acquires IT resources or IT services, not contracts in which the contractor uses IT resources to perform the work. Additionally, Clause 73 provides that federal information security requirements only apply when information is "contained in systems." This has precipitated a long running debate among government IT security stakeholders on how to define "IT system" and "contractor system." NIST standards and OMB FISMA instructions make clear, however,

that information security requirements apply whenever contractors have access to government information or government IT resources, regardless of how systems are defined.

The difficulty in recognizing when to apply federal information security requirements to a non-IT service contract is illustrated by NOAA's inability to address a contractor's objections to adhering to federal information security requirements. The contractor stated that Clause 73, and through it the Department's IT security policy, did not apply for the following reasons:

- Clause 73 defines security requirements for contractors accessing Commerce IT systems, and this contractor's personnel did not have access to Commerce systems in performing the contract.
- The clause only applies to IT service contracts, and the contract is for management services, not IT services.
- The clause requires certification and accreditation of a contractor's IT system only if the system is connected to a government network; however, the contractor did not have a network connection; the only connection is the exchange of e-mail.

The contract was for a wide range of management support services for NOAA's National Ocean Service marine sanctuary program. Among other things, the contract statement of work called for the contractor to perform the following services:

- Developing sanctuary master plans,
- Preparing cost estimates,
- Providing technical support on matters concerning real property, and
- Administrative and management functions.

Although the contractor must have access to Commerce information to perform these tasks and would generate government information requiring protection in the course of its work, the contractor was not told to adhere to the Department's IT security policy and certify and accredit its IT resources containing Commerce information. We disagree with the contractor that the Department's IT security policy only applies to a contractor with access to Commerce IT resources, that Clause 73 only applies to IT service contracts, and that certification and accreditation is required only if a network connection exists. FISMA and the Department's IT security policy require a contractor with access to government information, whether performing the work onsite or offsite, to comply with federal information security requirements. Contractor IT resources containing government information are subject to the same security requirements that would apply if the same information was on government IT resources.

Revising Clause 73 to eliminate outdated and ambiguous phrases, and to make it clear that a contractor must adhere to the Department's IT security policy if it has access to Commerce information should improve the implementation and oversight of contract IT security requirements. Revisions to Clause 73 should reflect that OMB FISMA instructions and the Department's IT security policy require some level of protection for all government IT systems and government information. To emphasize this point, GAO and OMB have described the

criteria for determining if federal information requirements apply to a contractor in terms of privileged access to government information.<sup>3</sup> The term *privileged access* is intended to distinguish information provided by the government under a contract or created by a contractor as part of contract performance from publicly available information. In general, government information is not made publicly available until the information is approved for public release pursuant to agency regulations, *e.g.*, Freedom of Information Act review or a determination that research is "fundamental research" under the Export Control Act.<sup>4</sup>

In revising Clause 73, the Department should consider eliminating the current requirement for COs to insert Clause 73 in all service contracts,<sup>5</sup> whether the contractor needs to adhere to the Department's IT security policy or not. NOAA contracting officers voiced strong opposition to the Department's direction to include Clause 73 in all service contracts during our entrance and exits conferences and in the course of our evaluation. Contracting officers said they would prefer to leave the clause out of contracts that do not give rise to any information security requirements because inserting irrelevant clauses into contracts can cause confusion and may waste scarce resources. They also are concerned that contractors may bill NOAA for the cost of complying with the clause or include such costs in proposals even if the government does not intend for the information security requirements to apply. Although those contracting officers could not give a specific example in which a contractor performed unnecessary information security work, we did raise this issue with the Department, and representatives from OAMFA said they are reconsidering the current requirement.

Giving contracting officers' discretion to insert clause 73 only in contracts in which government information or IT resources need to be protected could actually improve implementation of the clause while avoiding the issue of including irrelevant contract requirements. Because contractor IT security requirements should be determined during acquisition planning, the decision of whether the clause applies to that contract and, if so, which provisions apply can also be determined at that time. To accomplish this for a given contract, the contracting officer will need to work with representatives from the program offices, contracting officer representative, and IT security officer during the acquisition planning phase to determine if the clause is applicable, which provisions apply, and how will the requirements be met. The decision concerning the clause and its rationale should be included in the contract file.

---

<sup>3</sup> U.S. Government Accountability Office, *Information Security, Improving Oversight of Access to Federal Systems and Data by Contractors Can Reduce Risk*, GAO-05-362 (April 2005) and OMB FISMA Reporting Instructions p. 7 and OMB Circular A-130, *Management of Federal Information Resources*.

<sup>4</sup> This is not meant to serve as an exhaustive list of federal statutory authorities allowing for the public release of government information.

<sup>5</sup> NOAA included the IT security clauses in most of the contracts in our sample (13 of the 16 contracts).

### **Recommendations**

The Department's Chief Financial Officer, with the assistance of the Department's Chief Information Officer, should direct appropriate management officials to

1. Revise Clause 73 consistent with recent IT security policy to clearly establish that contractors with access to Commerce information or Commerce IT resources need to adhere to federal information security requirements.
2. Include Clause 73 only in applicable contracts and document the rationale for the decision to include or exclude it in the contract file. If the clause applies, document the applicable clause requirements along with the rationale in the contract file.

### **Synopsis of CFO/ASA's Response**

The CFO/ASA agreed with the recommendations. In the response, CFO/ASA stated that Clause 73 has been revised to be consistent with federal information security requirements and Commerce-wide policies. According to the CFO/ASA, the revised clause also clarifies requirements for clause applicability and documenting contract files.

### **Recommendation**

The Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator should direct appropriate management officials to ensure that the IT security clauses are included in service contracts, consistent with Departmental direction.

### **Synopsis of NOAA's Response**

NOAA agreed with this recommendation and will work with the Department to promulgate revised guidance and clauses and to improve contractors' compliance with applicable requirements.

## II. NOAA Is Not Ensuring that Contractor IT Resources Are Certified and Accredited

Seven of the 16 contracts in our sample required certification and accreditation, but only 2 had fulfilled the requirement. The remaining nine contracts did not require C&A of contractor IT resources because the place of performance was a NOAA facility and the contractors used government IT resources.

### Contracts with completed C&A

Contractor IT resources were certified and accredited on the lease for the National Weather Service's high-performance computer and the contract for the open radar data acquisition (ORDA), an effort to upgrade the weather radar's signal processing and control computers to an open system architecture. The high-performance computer was identified in the Department's FY 2005 FISMA report as a contractor system, but the IT resources used under the ORDA contract were incorporated into NOAA's Radar Operations Center system boundary. (This demonstrates the discretion system owners have to define a system accreditation boundary.) NOAA performed the majority of the work necessary to certify and accredit the relevant IT resources for both contracts.

### Contracts that still need C&A

Five contracts in our sample still need C&A of IT resources. C&A had not been performed in those instances because NOAA either did not recognize it was required or, if the need was recognized, did not follow through to complete the C&A.

**Marine Sanctuary Program support.** This contract is for support to the marine sanctuary program in areas such as developing sanctuary master plans, preparing cost estimates, and providing technical support on matters concerning real property and administrative and management functions. As such, the contractor will have access to or produce non-public government information using its IT resources. However, NOAA did not require C&A for those IT resources. NOAA needs to assess the information associated with this contract and ensure the contractor's IT resources are appropriately certified and accredited.

[REDACTED] 6.2  
[REDACTED] During our fieldwork, we brought this contractor system to the NOAA IT security officer's attention, and C&A activities were initiated—the contractor developed a system security plan, risk assessment, and completed security self-assessment. The IT security officer subsequently told us that system accreditation would be in the summer of 2006. NOAA should ensure the accreditation is completed.

**IT security consulting and testing contract.** Certification and accreditation was not performed for one of the IT security consulting contracts in our sample that had been completed. The task manager for this contract told us that the contractor had performed some work at its office. On future contracts, if government IT security information resides on contractor IT resources, they should be certified and accredited. The subject matter of such contracts would typically contain

government IT security information, and disclosure could adversely affect security of NOAA information and IT systems.

**Advanced Weather Interactive Processing System (AWIPS) contract.** This contract was awarded during our evaluation and is for the operation, maintenance, and support of AWIPS. We were originally told by the contracting officer that the contractor was informed that it was required to comply with the C&A requirements when the contract was awarded, since some of the IT resources at the contractor facility would be connected to the NOAA trusted network. In subsequent meetings, the NOAA IT security officer and AWIPS program officials told us that the contractor's IT resources would be included as part of NOAA's trusted network accreditation boundary. At the time of our fieldwork, no decision had been made on how and when certification and accreditation activities would be done for the contractor IT resources. NOAA needs to establish milestones and a schedule to ensure those IT resources are promptly certified and accredited.

**Chart production composition and quality control services.** In June 2005, the National Ocean Service (NOS) awarded a contract for the production of navigational charts. The company had already been performing this work under a Cooperative Research and Development Agreement (CRADA) for 10 years. To perform the work under the CRADA and the contract, IT resources at the contractor's site had been connected to NOAA's trusted network.

In April 2005, NOS recognized this connection needed certification and accreditation when it conducted a risk assessment of the relevant government system. The program manager told us that NOS initially planned to have the contractor perform the certification work. Then, in consultation with the NOS IT security officer, this plan was modified to incorporate the contractor's IT resources into a government accreditation boundary with NOS having system administrative control over these IT resources and performing the C&A activities. At the time of our fieldwork, NOS had not completed the certification and accreditation.

NOAA needs to evaluate its service contracts to identify which contractor IT resources require C&A and ensure that these resources are certified and accredited in a timely manner. Before contractor IT resources connect to a NOAA trusted network, an interconnection security agreement should identify any associated risks and the necessary security controls to mitigate those risks and validated as part of C&A.

NOAA plans to incorporate a number of contractor IT resources into the accreditation boundaries of its own systems.<sup>6</sup> If NOAA chooses to perform certification activities, personnel must be available to complete the tasks on an established schedule.

---

<sup>6</sup> The incorporation of contractor IT resources into NOAA system accreditation boundaries would require a security impact analysis of the changes to the information systems that the resources are being incorporated into. If there are significant changes then NOAA will need to re-accredit the system.



### **Recommendations**

The Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator should direct the NOAA procurement executive, with the assistance of the NOAA CIO, to take the following actions:

1. Ensure that the need for C&A of contractor IT resources is determined and documented in the contract file during acquisition planning.
2. Identify all contractor IT resources requiring C&A and develop a plan and schedule for completing the process:
  - a. Review existing contracts and develop an inventory of contractor IT resources that need C&A.
  - b. Determine whether the IT resources will be certified and accredited as contractor systems or incorporated into an existing NOAA system boundary.
  - c. Determine the most efficient approach in terms of government or contractor performance for completing C&A activities.
  - d. Assign responsibility for monitoring C&A of contractor IT resources.

### **Synopsis of NOAA's Response**

NOAA agreed with both recommendations. NOAA's Acquisition and Grants Office will direct contracting officers to document decisions on whether a contractor needs to undertake C&A activities. NOAA will identify contractor IT resources requiring C&A and appropriate actions will be taken to complete the certification and accreditation process for those IT resources.

### **OIG Comment**

After we concluded our fieldwork, NOS completed the certification and accreditation of the government system that was to include contractor IT resources for chart production and quality control services.

### III. Guidance for Applying Clause 73 Should Be Developed to Improve Planning and Implementation of Contractor C&A Requirements

The deficiencies in NOAA's application of Clause 73 stem, in part, from misunderstandings of the clause's requirements on the part of acquisition, program, and IT security personnel

#### Key Issues to Performing Contractor Information Security Oversight

- 1. Application of Clause 73.** Contractors need to comply with federal information security policy if they have privileged access to government information, access to government IT resources, or their IT resources are connected to a government trusted network.
- 2. Clause 73 Requirements.** Clause 73 contains two requirements: if the clause applies, the contractor must comply with relevant portions of the DOC IT security policy, but the C&A requirement only applies if contractor IT resources contain government information or provide connection to a government trusted network.
- 3. C&A Level of Effort.** Solicitations need to inform contractors whether the awardee's IT resources will be accredited at the low, moderate, or high impact level.
- 4. C&A Activities.** Solicitations need to inform contractors of what work is expected of the awardee to certify and accredit its IT resources.

regarding the types of contracts to which the clause applies and the conditions requiring C&A of contractor IT resources. While revising Clause 73 should go a long way toward addressing this issue, developing guidance on implementation of the clause would further facilitate its proper application and oversight. By focusing attention on four key issues discussed below and summarized in the box, contracting officers, contracting officer representatives, and IT security specialists should be better equipped to determine if a particular contractor needs to adhere to the Department's IT security policy and better understand the C&A requirements. The resolution of these issues during the acquisition planning phase should reduce instances in which contractors begin

to perform contracts and have access to Commerce information or networks/systems without taking the steps necessary to protect them.

#### Determining if Clause 73 Applies to a Contractor

During acquisition planning, the contracting officer, contracting officer representative, and IT security staff need to determine if the contractor will need to comply with the DOC IT security policy through application of Clause 73. By doing so, contractors interested in the work can propose various solutions to the government's information security needs and include the cost of their own efforts in their proposal. Clause 73 should apply in the following circumstances: (1) the contractor will have access to government IT resources, (2) the contractor will use its IT resources to allow privileged access to government information, or (3) the contractor's IT resources are connected to a government trusted network.

### **Determining Which Clause 73 Requirements Apply**

After contracting officers and contracting officer representatives determine that the clause applies, they must identify which provisions of the clause apply. Clause 73 contains two requirements. Subsection (b) requires contractors to comply with the Department's IT security policy. This subsection applies if contractor personnel have access to government information or government IT resources, or if that government information resides on contractor IT resources. In other words, if Clause 73 applies to a contractor, subsection (b) always applies, and the contractor will need to comply with relevant portions of the DOC IT security policy. Yet, not all contractors will need to comply with subsection (c), making C&A of contractor IT resources part of contract performance. Contractor IT resources need to undergo certification testing and receive accreditation only if the IT resources contain government information or they are connected to a government trusted network. Contractors need to understand whether one or both subsections apply on a given contract.

### **Determining the C&A Level of Effort**

If C&A provisions apply, the government needs to use the solicitation as a means for informing potential contractors if their IT resources will be accredited at the low, moderate, or high impact level. The C&A level of effort varies depending on the impact level of the government information residing on the IT resources. Clause 73 refers to several elements of a C&A package, but does not sufficiently communicate the complexity of the C&A process, which is a new undertaking for many contractors. Contractors need to know that the level of effort necessary to accredit a high impact system will be more rigorous and costly than the effort necessary to accredit a low impact system. The agency should determine what government information will be accessible or produced by the contractor and what the system impact level is for the government system(s) containing that information.

#### **C&A of Contractor IT Resources: Alternative Approaches**

- Contractor personnel perform the activities, and the system is accredited by a government official as a contractor system.
- Government personnel and contractor share responsibility for performance of the activities, and the system is accredited by a government official as a contractor system.
- The contractor's IT resources are incorporated into a government system accreditation boundary, and government personnel perform the majority of the activities.

### **Deciding if the Government or the Contractor Will Perform C&A Activities**

Contractors also need to know whether the government or the contractor will perform the certification activities so they can adequately address the government's information security requirements in their proposals, and include the cost of any effort on their part in their proposal price. Currently, Clause 73 does not specify whether the government or the contractor is responsible for performing these activities. It also does not indicate whether the contractor IT resources will be accredited as a contractor system or incorporated into an existing government

system accreditation boundary.<sup>7</sup> Several approaches to performing certification activities are possible (as shown in the box on page 14), but both the government and contractors should understand the costs and benefits of the alternatives before one is selected.

### **Recommendations**

The Department's Chief Financial Officer, with the assistance of the Department's Chief Information Officer, should direct appropriate management officials to

1. Develop accompanying instructions and guidance to clause 73 to make clear whether the clause will apply to a given contract and which Clause 73 provisions contractors are subject to, including whether contractor IT resources/components need certification and accreditation.
2. If certification and accreditation of contractor IT resources is required, the instructions should facilitate contracting officers, contracting officer representatives, and IT security officers in resolving for contractors
  - a. what the level of effort will be,
  - b. the government and contractor roles in performing the certification and accreditation activities, and
  - c. whether the contractor IT resources will be accredited as a contractor system or incorporated into an existing government system accreditation boundary.

### **Synopsis of CFO/ASA's Response**

The CFO/ASA agreed with both recommendations. The CFO/ASA response stated that the checklist and flowchart, issued with PM 2000-06, clarifies the process for determining whether the clause applies to a contract, and if so, which specific provisions apply. Additionally, the checklist incorporates language from the text box on page 14 of this report to address available options for certification and accreditation of contractor IT resources.

---

<sup>7</sup> An accreditation boundary is all the components of an information system to be accredited by an authorizing official and excludes separately accredited systems to which the information system is connected. NIST Special Publication 800-37, *Guide for the Security Certification and Accreditation of Federal Information Systems*, May 2004

#### IV. NOAA Is Implementing Clause 74, but the Department Should Update the Commerce Acquisition Manual

The Department has established various types of background screenings for low, moderate, and high risk contracts.<sup>8</sup> Clause 74 requires that the contracting officer representative, in consultation with others, designate contract risk level. The clause also requires contractor personnel to undergo IT security awareness training. We found that generally contractor personnel are receiving IT security awareness training prior to being granted access to NOAA IT resources.

However, although contracting officer representatives are determining contract risk levels, they did not document the risk levels in contracts or identify them in contract files, making it difficult to determine whether the appropriate risk level had been assigned. Our discussions with NOAA officials indicated that most of the contracts in the sample were designated as low risk, and two were rated moderate risk. Therefore, most contractor personnel were subject to background investigations commensurate with these risk levels (called National Agency Check and Inquiries (NACI) screening).

In August 2005, OAMFA officials told us they had begun updating the Commerce Acquisition Manual (CAM) section on determining contract risk levels (1337.70) to reflect the Department's revised IT security policy and updated NIST IT security guidance.<sup>9</sup> With the new framework, risk is to be determined not only by the function an individual performs, but also by the potential impact on an organization should certain events occur that jeopardize information and information systems. The Department's Office of the CIO adopted the new framework in the 2005 revision of the Commerce IT security policy, but the CAM update has not been completed. Since the criteria for evaluating risk levels will change when the CAM is revised, we did not attempt to validate the risk levels of the contracts in our sample.

#### Recommendations

Commerce's Chief Financial Officer, with the assistance of Commerce's Chief Information Officer, should direct appropriate management officials to

1. Require that contract risk levels and their rationale be documented in the contract file
2. Complete the revisions to CAM section 1337.70 on contract risk levels as soon as possible.

#### Synopsis of CFO/ASA's Response

The CFO/ASA agreed with both recommendations. According to the response, the new checklist clarifies the need for determining contract risk levels and documenting rationales in

<sup>8</sup> Clause 74 states that contractor screening shall be in accordance with CAM 1337.70, which directs that a program office representative, typically the COR, should make contract risk level designations in conjunction with operating unit management, the Office of Security, and the procurement office.

<sup>9</sup> NIST Special Publication 800-53, *Recommended Security Controls for Federal Information Systems*, February 2005.

contract files. The CFO/ASA response mentions that OAMFA has been working with the Department's Office of Security (OSY), and Office of Chief Information Officer (OCIO) to align policies regarding personnel security processing requirements for Commerce service contract. As a result of these efforts, changes in these requirements are included in the revised Commerce Acquisition Manual 1337.70.

## APPENDIX A: IT SECURITY CLAUSES

October 1, 2003

The Contracting Officer shall insert a clause the same as the following in all DOC solicitations and contracts for services. The following language may only be modified by adding more restrictive agency or bureau specific guidance

### CAR 1352.239-73- SECURITY REQUIREMENTS FOR INFORMATION TECHNOLOGY RESOURCES

- (a) This clause is applicable to all contracts that include information technology resources or services in which the Contractor must have physical or electronic access to DOC's sensitive or classified information, which is contained in systems that directly support the mission of the Agency. For purposes of this clause the term "Sensitive" is defined by the guidance set forth in:

- (1) The *DOC IT Security Program Policy and Minimum Implementation Standards* (<http://www.osec.doc.gov/cio/itmhweb/itmhweb1.html>);
- (2) The Office of Management and Budget (OMB) *Circular A-130, Appendix III, Security of Federal Automated Information Resources*, (<http://csrc.nist.gov/secpolicy/a130app3.txt>) which states that there is a "presumption that all [general support systems] contain some sensitive information."; and
- (3) The *Computer Security Act of 1987* (P.L. 100-235) (<http://www.epic.org/crypto/csa/csa.html>), including the following definition of the term sensitive information "... any information, the loss, misuse, or unauthorized access, to or modification of which could adversely affect the national interest or the, conduct of federal programs, or the privacy to which individuals are entitled under section 552 a of title 5, United States Code (The Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy."

For purposes of this clause, the term "Classified" is defined by the guidance set forth in:

- (1) The *DOC IT Security Program Policy and Minimum Implementation Standards, Section 3.3.1.4* (<http://www.osec.doc.gov/cio/itmhweb/itmhweb1.html>).
- (2) The *DOC Security Manual, Chapter 18* (<http://www.osec.doc.gov/osyf/>).
- (3) Executive Order 12958, as amended, Classified National Security Information. Classified or national security information is information that has been specifically authorized to be protected from unauthorized disclosure in the interest of national defense or foreign policy under an Executive Order or Act of Congress.

Information technology resources include, but are not limited to, hardware, application software, system software, and information (data). Information technology services include, but are not limited to, the management, operation (including input, processing, transmission, and output), maintenance, programming, and system administration of computer systems, networks, and telecommunications systems. The Contractor shall be responsible for implementing sufficient Information Technology security, to reasonably prevent the

October 1, 2003

compromise of DOC IT resources for all of the contractor's systems that are interconnected with a DOC network or DOC systems that are operated by the Contractor.

- (b) All Contractor personnel performing under this contract and Contractor equipment used to process or store DOC data, or to connect to DOC networks, must comply with the requirements contained in the *DOC Information Technology Management Handbook* (<http://www.osec.doc.gov/cio/itmhwel/itmhwel.html>), or equivalent/more specific agency or bureau guidance as specified immediately hereafter (insert agency or bureau specific guidance, if applicable).
- (c) For all Contractor-owned systems for which performance of the contract requires interconnection with a DOC network or that DOC data be stored or processed on them, the Contractor Shall:

(1) Provide, implement, and maintain an IT Security Plan. This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. The plan shall describe those parts of the contract to which this clause applies. The Contractor's IT Security Plan shall comply with federal laws that include, but are not limited to, the Computer Security Act of 1987 (40 U.S.C. 1441 *et seq.*) and the Federal Information Security Management Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899, 2946-2961 (2002); Pub. L. No. 107-296, 116 Stat. 2135, 2259-2273 (2002). 38 WEEKLY COMP. PRES. DOC. 51, 2174 (Dec. 23, 2002) (providing statement by President George W. Bush regarding Federal Information Security Management Act of 2002). The plan shall meet IT security requirements in accordance with Federal and DOC policies and procedures that include, but are not limited to:

- (a) OMB Circular A-130, *Management of Federal Information Resources*, Appendix III, *Security of Federal Automated Information Resources* (<http://csrc.nist.gov/secplcy/a130app3.txt>);
- (b) National Institute of Standards and Technology Special Publication 800-18, *Guide for Developing Security Plans for Information Technology Systems* (<http://csrc.nist.gov/publications/nistpubs/800-18/Planguide.PDF>); and
- (c) DOC Procedures and Guidelines in the *Information Technology Management Handbook* (<http://www.osec.doc.gov/cio/itmhwel/itmhwel.html>).
- (d) National Industrial Security Program Operating Manual (NISPOM) for classified systems (<http://www.dss.mil/isc/nispom.htm>); and
- (e) [Insert agency or bureau specific guidance].

(2) Within 14 days after contract award, the contractor shall submit for DOC approval a System Certification and Accreditation package, including the IT Security Plan and a system certification test plan, as outlined in *DOC IT Security Program Policy*, Sections 3.4 and 3.5 (<http://home.osec.doc.gov/DOC-IT-Security-Program-Policy.htm>). The Certification and Accreditation Package must be consistent with and provide further detail for the security approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in this clause. The Certification and Accreditation Package, as approved by the Contracting Officer, in consultation with the DOC IT Security



October 1, 2003

Manager, or Agency/Bureau IT Security Manager/Officer, shall be incorporated as part of the contract. DOC will use the incorporated IT Security Plan as the basis for certification and accreditation of the contractor system that will process DOC data or connect to DOC networks. Failure to submit and receive approval of the Certification and Accreditation Package, as outlined in *DOC IT Security Program Policy*, Sections 3.4 and 3.5 (<http://home.osec.doc.gov/DOC-IT-Security-Program-Policy.htm>) may result in termination of the contract.

(d) The Contractor shall incorporate this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.

(End of clause)

October 1, 2003

The Contracting Officer shall insert a clause the same as the following in all DOC solicitations and contracts for services. The following language may only be modified by adding more restrictive agency or bureau specific guidance. Contracting Officers must include CAR 1352.209-72, *Restrictions Against Disclosures*, in all solicitations and contracts which include CAR 1352.239-74.

**CAR 1352.239-74 SECURITY PROCESSING REQUIREMENTS FOR  
CONTRACTORS/SUBCONTRACTOR PERSONNEL FOR ACCESSING DOC  
INFORMATION TECHNOLOGY SYSTEMS**

(a) Contractor personnel requiring any access to systems operated by the Contractor for DOC or interconnected to a DOC network to perform contract services shall be screened at an appropriate level in accordance with Commerce Acquisition Manual 1337.70, *Security Processing Requirements for Service Contracts*. DOC shall provide screening using standard personnel screening forms, which the Contractor shall submit to the DOC Contracting Officer's Technical Representative (COTR) based on the following guidance:

- 1) Contract personnel performing work designated Contract High Risk and personnel performing work designated Contract Moderate Risk in the information technology (IT) occupations and those with "global access" to an automated information system require a favorable pre-employment check before the start of work on the contract, regardless of the expected duration of the contract. After a favorable pre-employment check has been obtained, the Background Investigation (BI) for Contract High Risk and the Minimum Background Investigation (MBI) for Contract IT Moderate Risk positions must be initiated within three working days of the start of work.
- 2) Contract personnel performing work designated Contract Moderate Risk who are not performing IT-related contract work do not require a favorable pre-employment check prior to their employment; however, the Minimum Background Investigation (MBI) must be initiated within three working days of the subject's start of work on the contract, regardless of the expected duration of the contract.
- 3) Contract personnel performing work designated Contract Low Risk will require a National Agency Check and Inquiries (NACI) upon the subject's start of work on the contract if the expected duration of the contract exceeds 365 calendar days. The NACI must be initiated within three working days of the subject's start of work on the contract.
- 4) Contract personnel performing work designated Contract Low Risk will require a Special Agreement Check (SAC) upon the subject's start of work on the contract if the expected duration of the contract (including options) exceeds 180 calendar days but is less than 365 calendar days. The SAC must be initiated within three working days of the subject's start of work on the contract.
- 5) Contract personnel performing work on contracts requiring access to classified information must undergo investigative processing according to the Department of Defense

October 1, 2003

National Industrial Security Program Operating Manual (NISPOM), (<http://www.dss.mil/isec/nispom.htm>) and be granted eligibility for access to classified information prior to beginning work on the contract.

The security forms may be obtained from the cognizant DOC security office servicing your bureau, operating unit, or Departmental office. At the option of the government, interim access to DOC IT systems may be granted pending favorable completion of a pre-employment check. Final access may be granted only on completion of an appropriate investigation based upon the risk level assigned to the contract by the Contracting Officer.

(b) Within 5 days after contract award, the Contractor shall certify in writing to the GOCR that its employees, in performance of the contract, have completed annual IT security awareness training in DOC IT Security policies, procedures, computer ethics, and best practices, in accordance with *DOC IT Security Program Policy*, section 3.13 (<http://home.ossec.doc.gov/DOC-IT-Security-Program-Policy.htm>). The COTR will inform the Contractor of any other available DOC training resources.

(c) Within 5 days of contract award, the Contractor shall provide the COTR with signed Nondisclosure Agreements as specified in Commerce Acquisition Regulation (CAR), 1352.209-72, *Restrictions Against Disclosures*.

(d) The Contractor shall afford DOC, including the Office of Inspector General, access to the Contractor's and subcontractor's facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection, investigation, and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of DOC data or to the function of computer systems operated on behalf of DOC, and to preserve evidence of computer crime.

(e) The Contractor shall incorporate this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.

(End of clause)

APPENDIX B: DEPARTMENT's RESPONSE



UNITED STATES DEPARTMENT OF COMMERCE  
Chief Financial Officer and  
Assistant Secretary for Administration  
Washington, D.C. 20230

SEP 27 2006

MEMORANDUM FOR Judith J. Gordon  
Assistant Inspector General for Systems Evaluation

FROM: Otto J. Wolff  
Chief Financial Officer and  
Assistant Secretary for Administration

SUBJECT: Draft Inspection Report Number OSE-18028,  
*Additional Steps are Necessary to Provide Better Oversight of  
Contractor Information Security*

We have reviewed the subject draft report and agree with its findings and conclusions. As noted in your August 11, 2006 transmittal memorandum, action is currently underway to implement recommendations made in the draft report that relate to our organization. Attached is a detailed response to those recommendations.

We appreciate the opportunity to review the draft report and look forward to receiving the final report. If you have questions or would like to discuss any aspect of this inspection in additional detail, please contact Michael S. Sade at (202) 482-4248.

Attachment

Attachment

**Office of the Chief Financial Officer and Assistant Secretary for Administration  
Response to Draft Inspection Report Number OSE-18028,  
*Additional Steps are Necessary to Provide Better Oversight of Contractor Information Security***

In addition to responses to the recommendations made in the draft report as provided below, we note that the title indicated on the cover page should be revised. It should be changed from "Additional Are Steps Necessary to Provide Better Oversight of Contractor Information Security" to "Additional Steps Are Necessary to Provide Better Oversight of Contractor Information Security."

Recommendation I (page 9):

The Department's Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA), with the assistance of the Department's Chief Information Officer, should direct appropriate management officials to:

1. Revise Clause 73 consistent with recent information technology (IT) security policy to clearly establish that contractors with access to Commerce information or Commerce IT resources need to adhere to federal information security requirements.
2. Include Clause 73 only in applicable contracts and document the rationale for the decision to include or exclude it in the contract file. If the clause applies, document the applicable clause requirements along with the rationale in the contract file.

Response:

We concur. The Office of Acquisition Management and Financial Assistance (OAMFA) has revised Clause 73 to be consistent with federal information security requirements and Commerce-wide policies, and has clarified requirements for clause applicability in contracts and for documenting the contract file. This revision is nearly complete and will be issued soon.

Target Implementation Date:

October 1, 2006 – OAMFA anticipates issuing Procurement Memorandum (PM) 2006-06, which will include an updated Clause 73.

Recommendation II (page 12):

This recommendation does not apply to the Office of the CFO/ASA. No action is needed.

Recommendation III (page 15):

The Department's CFO/ASA, with the assistance of the Department's Chief Information Officer, should direct appropriate management officials to:

1. Develop accompanying instructions and guidance to Clause 73 to make clear whether the clause will apply to a given contract and to which Clause 73 provisions contractors are subject,

- 2 -

including whether contractor IT resources/components need certification and accreditation.

2. If certification and accreditation of contractor IT resources is required, the instructions should facilitate contracting officers, contracting officer representatives, and IT security officers in resolving for contractors:
  - a. what the level of effort will be,
  - b. the government and contractor roles in performing the certification and accreditation activities, and
  - c. whether the contractor IT resources will be accredited as a contractor system or incorporated into an existing government system accreditation boundary.

Response:

We concur. In response to item number 1 under this recommendation, OAMFA is including with PM 2006-06 a checklist and flowchart to clarify the process for determining whether the clause applies and, if so, which specific provisions apply. In response to item number 2 under this recommendation, the checklist will incorporate language from the text box on page 14 of the draft inspection report to address the available options for certification and accreditation.

Target Implementation Dates:

September 15, 2006 – Revisions to checklist completed.  
October 1, 2006 – OAMFA anticipates issuing PM 2006-06, which will include an appropriate checklist.

Recommendation IV (page 16):

The Department's CFO/ASA, with the assistance of the Department's Chief Information Officer, should direct appropriate management officials to:

1. Require that contract risk levels and their rationale be documented in the contract file, and
2. Complete the revisions to CAM section 1337.70 on contract risk levels as soon as possible.

Response:

We concur. In response to item number 1 under this recommendation, the checklist that will be issued with PM 2006-06 will clarify the need to document contract risk levels and their rationale in the contract file. In response to item number 2 under this recommendation, OAMFA has been working with the Department's Office of Security and the Office of the Chief Information Officer to align policies regarding personnel security processing requirements for Commerce service contracts.

Target Implementation Date:

October 1, 2006 – The Commerce Acquisition Manual issuance memorandum and revised CAM 1337.70 will be issued.

APPENDIX C: NOAA's RESPONSE



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
CHIEF ADMINISTRATIVE OFFICER

September 11, 2006

MEMORANDUM FOR: Judith J. Gordon  
Assistant Inspector General for Systems Evaluation

FROM: *William F. Broghe*  
William F. Broghe

SUBJECT: NOAA's Comments to the Office of Inspector General's (OIG)  
Draft Report--Additional Steps Are Necessary to Provide Better  
Oversight of Contractor Information Security  
Draft Inspection Report No. OSE-18028/August 2006

Thank you for the opportunity to comment on the OIG draft inspection report on information technology security in National Oceanic and Atmospheric Administration contracts. Attached are our comments.

Attachment



**NOAA's Comments on the Draft OIG Report Entitled  
"National Oceanic and Atmospheric Administration: Additional Steps Are Necessary to  
Provide Better Oversight of Contractor Information Security"  
(Draft Inspection Report No. OSE-18028/August 2006)**

**General Comments**

The National Oceanic and Atmospheric Administration (NOAA) appreciates the opportunity to review and comment on the above-mentioned Office of Inspector General (OIG) draft report. We support the OIG's recommendations concerning the need for the Department of Commerce to ensure its procurement clauses are consistent with the Department's information technology (IT) security policy and standards established by the National Institute of Standards and Technology. Updates to the clauses and to the Commerce Acquisition Manual, as well as clarification and guidance on the applicability and utilization of the clauses will improve the certification and accreditation (C&A) of contractor IT resources.

**NOAA Response to OIG Recommendations**

**Page 9:**

**Recommendation 1:** The Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator should direct appropriate management officials to ensure that the IT security clauses are included in service contracts, consistent with Departmental direction.

**NOAA Response:** We concur. NOAA will work with the Department to develop and promulgate revised guidance and clauses. Once the revised guidance is received, NOAA will make applicability determinations during the advance acquisition planning process. Furthermore, NOAA's Acquisitions and Grants Office will work with the NOAA Chief Information Officer, its IT security staff, NOAA program offices, and other relevant parties to ensure compliance with all requirements.

**Page 12:**

**Recommendation 2:** The Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator should direct the NOAA procurement executive, with the assistance of the NOAA CIO, to take the following action: Ensure that the need for C&A of contractor IT resources is determined and documented in the contract file during acquisition planning.

**NOAA Response:** We concur. NOAA agrees that determining the need for C&A of contractor IT resources and documenting results in contractor files are both important. NOAA's AGO has shared this with NOAA Heads of Contracting Offices (HCOs) and plans to make such determinations and document their results are forthcoming.



**Recommendation 3:** The Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator should direct the NOAA procurement executive, with the assistance of the NOAA CIO, to take the following action: Identify all contractor IT resources requiring C&A and develop a plan and schedule for completing the process, *[including]*:

- a. Review existing contracts and develop an inventory of contractor IT resources that need C&A;
- b. Determine whether the IT resources will be certified and accredited as contractor systems or incorporated into an existing NOAA system boundary;
- c. Determine the most efficient approach in terms of government or contractor performance for completing C&A activities.
- d. Assign responsibility for monitoring C&A of contractor IT resources.

**NOAA Response:** We concur. NOAA agrees IT resources requiring C&A should be identified and appropriate steps should be taken to plan and schedule completion of this process. NOAA's AGO has shared this with NOAA Heads of Contracting Offices (HCOs) and will take appropriate steps to ensure this recommendation is implemented.



U.S. Department of Commerce  
Office of Inspector General

# **INSPECTOR GENERAL HOTLINE**

**1-800-424-5197**



## **FRAUD, WASTE & ABUSE SUSPECT IT? REPORT IT!**

Office of Inspector General Hotline  
U.S. Department of Commerce

Call (24 hrs): (800) 424-5197

(202) 482-2495

TDD: (800) 854-8407

(202) 482-5923

E-mail: [hotline@oig.doc.gov](mailto:hotline@oig.doc.gov)

Write: OIG Hotline

U.S. Department of Commerce

P.O. Box 612

Ben Franklin Station

Washington, D.C. 20024

**Complaints may be made anonymously.**

**U.S. DEPARTMENT OF COMMERCE**  
**Office of Inspector General**

---



**U. S. Census Bureau**

*Census Has Improved Accountability for  
Laptops and Other Personal Property,  
But Additional Improvements Are Needed*

*Final Audit Report No. IG-18387-1 (OA)/September 2007*

**PUBLIC RELEASE**

*Office of Audits*



SEP 28 2007



UNITED STATES DEPARTMENT OF COMMERCE  
The Inspector General  
Washington, D.C. 20230

MEMORANDUM FOR: Charles Louis Kincannon  
Director  
U.S. Census Bureau

FROM: Elizabeth T. Hallow *E. Hallow*  
Acting Inspector General

SUBJECT: *Census Has Improved Accountability for Laptops and  
Other Personal Property, but Additional Improvements Are  
Needed*  
Final Audit Report No. IG-18387-1 (OA)

Attached is the final report on our audit of the effectiveness of the Census Bureau's internal controls for its accountable personal property. We are aware the bureau is expending significant effort to implement Department-wide and Census initiatives to address weaknesses in its internal controls over accountable property, and we expect these initiatives will improve the bureau's property management.

Our review of internal controls to protect and control accountable personal property found the Census Bureau has made considerable progress in strengthening its internal controls. However, we believe that continued management attention will be necessary to maintain ongoing efforts to address identified weaknesses, prevent the relaxation of recently strengthened internal controls, and ensure that property management remains a priority. We summarize the results of our review on page i. A list of our recommendations is on page 12.

In its response to our draft report, the Census Bureau expressed agreement with four of the five recommendations, noting that steps to address the recommendations had been taken or were planned. While Census disagreed with the recommendation that called for the consideration of property value in eliminating the backlog of property boards of review (PBR) cases, actions taken by the Bureau are consistent with the intent of our recommendation and we modified our finding and recommendation accordingly. The Bureau's response is summarized in the report and included in its entirety as Appendix I.

In accordance with Department Administrative Order 213-5, please provide us with an audit action plan that addresses all of the report recommendations within 60 days of the date of this memorandum. If you would like to discuss the contents of the final report, please contact me at (202) 482-4661 or John Seeba, Assistant Inspector General for Auditing, at (202) 482-5910.

We appreciate the cooperation and courtesies your staff extended to us during our audit.

Attachment



cc: Ted Johnson, Associate Director for Administration and Chief Financial Officer  
Richard Swartz, Associate Director for Information Technology and Chief  
Information Officer  
Marilia Matos, Associate Director for Field Operations  
Preston J. Waite, Deputy Director and Chief Operating Officer

## CONTENTS

SUMMARY .....	i
INTRODUCTION .....	1
OBJECTIVES, SCOPE, AND METHODOLOGY .....	4
FINDINGS AND RECOMMENDATIONS .....	6
Census Has More to Do to Improve and Strengthen Accountable Property Internal Controls .....	6
A. Weaknesses in Personal Property Management.....	6
B. Corrective Actions Already Implemented or Planned by Census .....	7
C. Additional Improvements Needed to Strengthen Internal Controls .....	8
D. Recommendations .....	12
E. Census Response .....	12
F. OIG Comments .....	12
APPENDIX I: Census Bureau's Complete Response to Draft Audit Report	

## **SUMMARY**

On September 14, 2006, the Secretary of Commerce requested the Inspector General to determine the extent of problems in protecting sensitive personal information at the Census Bureau and assess the bureau's property management policies and practices. This report details the results of our audit of the bureau's property policies and practices. A separate report issued by the Office of Systems Evaluation details the results of its review of the bureau's efforts to improve information technology security and protect sensitive personal information.

On September 21, 2006, following both a Freedom of Information Act and a congressional request regarding the compromise of sensitive personal information and lost laptops, the Department issued a press release stating that 1,138 laptops had been lost Department-wide. Of that number, 672 belonged to Census. On September 22, 2006, Commerce received a second congressional request relating to information on missing laptop computers, thumb drives, handheld devices, and computer data disks since January 2001.

### **Quick Facts**

- Census headquarters is located in Suitland, Maryland, with 12 regional offices around the country, and a processing center in Jeffersonville, Indiana.
- The Administrative and Customer Services Division (ACSD) is responsible for Census's Automated Property Management System (APMS) and physical inventories.
- As of March 8, 2007, Census owned about 42,000 pieces of accountable property (such as laptop computers, personal computers, photocopy machines, and video cameras) valued at approximately \$188 million.

### **Weaknesses in Personal Property Management**

From January 2001 until September 2006, the time period for which the bureau reported 672 lost/missing/stolen laptops, personal property management at Census suffered from a number of weaknesses, including inadequate attention to property management, inactive property boards of review, and inadequate procedures for recovery of laptops. (See page 6.) During our review, we were told by various Census officials that prior to 2006 the recovery of lost/stolen laptops and other accountable property had not been a priority.

#### **Weaknesses in Census Bureau Personal Property Management**

##### **Inadequate Attention to Property Management**

- Inventory results were not consolidated and analyzed
- Census does not have a full-time property management officer

##### **Inactive Property Boards of Review**

- Property review boards were discontinued in the 1990s reportedly because it wasn't clear how they should be implemented

##### **Inadequate Procedures for Recovery of Laptops**

- Census officials stated that the recovery of lost/missing/stolen laptops had not been a priority
- Until media reports raised concerns in 2006, recovery procedures for regional offices had not been updated since June 2000

Corrective actions already implemented or planned

We found that Census has taken and planned a number of actions to address weaknesses in personal property management. (See page 7.) In an October 3, 2006 memorandum, the Deputy Secretary assigned the offices of the Chief Information Officer and the Chief Financial Officer and Assistant Secretary for Administration responsibility for coordinating a Department-wide corrective action plan to address lax management of personal property and protect sensitive

information. Census has been implementing the Department-wide corrective action plan and has also initiated corrective actions of its own. Increased management efforts have resulted in the recovery of about 120 laptops at headquarters and the regional offices since September 2006.

**Corrective Actions to Address Weaknesses**

**Increased Attention to Property Management**

- *Emphasis on personal property management in performance plans*
- *Preparations to conduct OMB Circular A-123 reviews*

**Reactivated Property Boards of Review**

- *Re-establish property boards of review*

**Improved Management of Laptops and Recovery Procedures**

- *Consolidate management of headquarters laptops*
- *Standardize laptop recovery procedures in the regional offices*

Additional improvements are needed to strengthen internal controls

Despite the actions already taken, Census needs to further strengthen internal controls over its accountable property by doing the following:

- **Transactions should be recorded promptly. (See page 8.)** Our review found the property management system was not always current because transactions involving property were often not recorded in APMS promptly. We recommend that the Census Bureau director take appropriate action to ensure that transactions are promptly recorded into APMS; all accountable property on hand at the time of an inventory is recorded into APMS; the backlog of Personal Property Control forms (CD-50s) is eliminated; and equipment no longer in use is properly and promptly excessed.
- **Execution of inventory procedures needs improvement. (See page 10.)** Inventories conducted at headquarters and in regional offices should be performed effectively and efficiently. We found that regional offices did not always use a sweeper (the member of the inventory team responsible for ensuring that all items are scanned and marked as inventoried) during their inventories, and headquarters also encountered difficulties in performing its inventories. We recommend that the Census Bureau director take appropriate action to ensure that guidance on conducting inventories which emphasizes the segregation of duties is issued.
- **Property management policies and inventory procedures need to be consolidated. (See page 11.)** Guidance on conducting inventories, recovering laptops, and excessing equipment is found in a number of different



memorandums issued over many years. To ensure roles and responsibilities of property management officials are clear, we recommend that the Census Bureau director take appropriate action to ensure that the internal policies and procedures for handling accountable property are consolidated into a cohesive guiding document that is routinely updated and readily accessible.

- **Property boards of review need to be convened as necessary to ensure that no future backlog of cases accumulates. (See page 11.)** Census reinstated property boards of review to address a backlog of about 800 missing, lost, or stolen property items. In addition to eliminating its backlog of cases, Census stated that new cases resulting from its April/May 2007 inventory were being reviewed. We recommend that property boards of review are convened as necessary to ensure that not future backlog of cases accumulates.
- **Property management officer's responsibilities should be evaluated. (See page 11.)** Although the large volume and value of its geographically-dispersed property poses a significant control challenge for Census, the bureau does not have a full-time property management officer. We recommend that the Census Bureau director take appropriate action to ensure that the current responsibilities of the property management officer are assessed to determine whether to create a full-time position solely dedicated to property management.

In its response to our draft report, Census agreed with four of the five OIG recommendations and stated that it has already taken or initiated corrective actions to address those recommendations. Census disagreed with the draft recommendation that called for the property value of items to be considered in the elimination of the backlog of property boards of review (PBR) cases. However, the Bureau's establishment of PBRs to eliminate its backlog of cases and its current procedure to convene PBRs as property is reported as lost, missing, or stolen is consistent with the intent of our recommendation that the backlog of PBR cases be eliminated. We modified this recommendation to reflect recent efforts to address the backlog and remove property value as a consideration in convening PBRs.

## INTRODUCTION

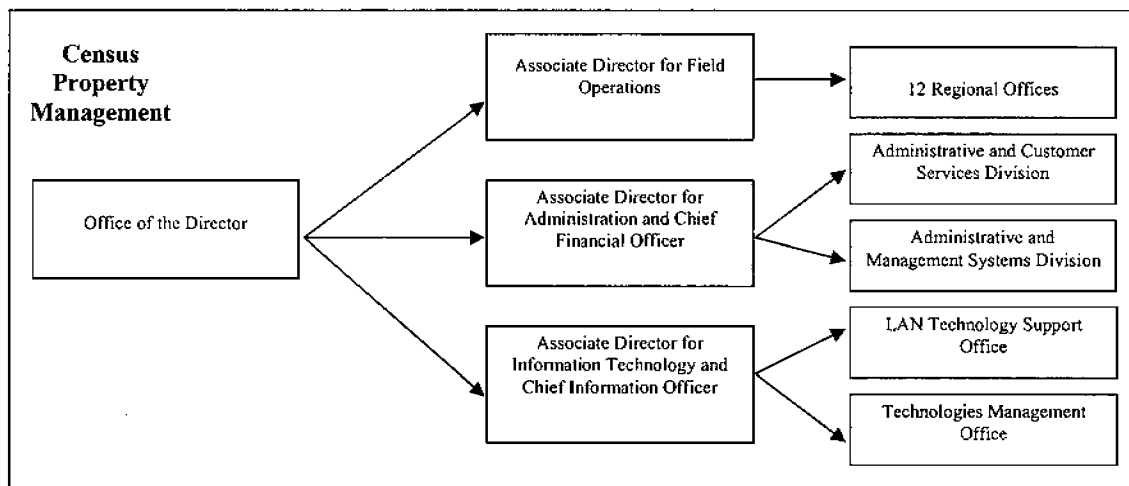
The May 2006 Department of Veterans Affairs announcement that computer equipment containing the personal information of approximately 26.5 million veterans and active duty members of the military had been stolen from the home of a VA employee ignited government-wide concern about data breaches at federal agencies.

In a memo dated September 14, 2006, the Secretary of Commerce requested the Commerce Inspector General to determine the extent of problems protecting sensitive personal information at the U.S. Census Bureau and to assess that bureau's property management policies and practices. The Office of Inspector General's Office of Systems Evaluation is issuing a separate report on its review of the bureau's efforts to improve information technology security and protect sensitive personal information. This report from OIG's Office of Audits assesses the bureau's property management policies and practices.

### How Census Manages Accountable Property

Census maintains significant accountable property at its headquarters in Suitland, Maryland, in 12 regional offices around the country, and at a processing center in Jeffersonville, Indiana. As of March 8, 2007, the bureau's Automated Property Management System (APMS) reported that Census owned about 42,000 pieces of accountable property including laptop computers, personal computers, photocopy machines, and video cameras valued at approximately \$188 million.

The Census Bureau's *Policies and Procedures Manual* (Chapter K-9, dated September 10, 2001), defines *accountable property* as (1) having a cost of \$5,000 or more, having a life expectancy of 2 years or more, and retaining its identity during use, or (2) being a sensitive property item. Sensitive property is property that converts easily to personal use and has a high potential for theft. All accountable property owned by the bureau must be tracked in APMS.



Source: OIG/Office of Audits

Within Census, responsibilities for property management are divided as follows:

- The Office of the Chief Financial Officer's Administrative and Customer Services Division (ACSD) manages APMS and physical inventories of accountable property. The Administrative and Management Systems Division programs, maintains, and updates APMS. The bureau's property management officer is the assistant chief of ACSD, and the bureau's property accountability officer is the chief of the Property, Records and Transportation Management Branch.
- Field Division, which reports to the associate director for field operations, is responsible for all laptops in the regional offices. Headquarters division chiefs and the directors/managers of the regional offices and field offices serve as the bureau's property custodians.
- Within the Chief Information Officer's office, the Local Area Network Technology Support Office is responsible for purchasing and maintaining personal computers, monitors and laptops for headquarters and the National Processing Center in Jeffersonville, Indiana. The Technologies Management Office (TMO) is responsible for the acquisition and distribution of IT equipment for field representatives in the regions.
- All Census personnel are responsible for the proper use, care, and protection of personal property in their possession, custody, or control. Employees are also required to report immediately to appropriate officials any personal property that is out of service, lost, or missing.

#### Commerce Investigates Lost Laptops and Compromised Sensitive Personal Information

Between June and September 2006, the Department received a Freedom of Information Act request and two congressional requests regarding the compromise of sensitive personal information and the loss of laptops. On September 21, 2006, Commerce issued a statement describing Department-wide loss of 1,138 laptops (249 containing personally identifiable information) and 297 incidents involving the compromise of personally identifiable information. The bulk of the lost laptops (672 since January 2001) and personally identifiable information incidents (291 since January 2003) occurred at the Census Bureau. Of the 672 laptops missing from Census, 342 (51 percent) belonged to field offices and 330 (49 percent) belonged to headquarters.

The Deputy Secretary of Commerce instructed a team led by his senior advisor to identify the scope of the loss of sensitive personal information, assess the adequacy of data security on the information that was lost, and determine whether it was possible for Census to learn the identities of and notify any persons whose sensitive personal information was lost. That investigation was completed on October 3, 2006. In a memorandum detailing the team's findings, the Deputy Secretary's senior advisor stated the bureau's reported instances of lost, stolen, or missing electronic equipment and paper records were as accurate as possible given the bureau's reliance on self-reported data and existing weaknesses in the personal property inventory management system. The

memorandum also reported that someone with only moderate skill could gain access to sensitive information on the laptops and passwords on handhelds did not comply with Commerce policy. In addition, the memorandum noted that while Census was able to identify and notify all households whose data were missing on handheld devices, the bureau was not able to identify the individuals or households whose data were on missing laptops and thumb drives.

#### Department and Bureau Initiate Actions to Address Weaknesses in Internal Controls

In an October 3, 2006 memorandum, the Deputy Secretary tasked the Chief Financial Officer and Assistant Secretary for Administration and Chief Information Officer with developing and coordinating an aggressive Department-wide corrective action plan to address lax management of personal property and protect sensitive information. They were directed to report on this issue weekly to the Deputy Secretary and monthly to the Secretary. The Department is continuing to track Census's progress in strengthening its internal controls over accountable property by monitoring the bureau's efforts to implement the Department-wide plan.

In addition to implementing the Department-wide plan, the Census Bureau has initiated corrective actions of its own. Increased management attention and aggressive efforts by Census property management officials have resulted in the recovery of about 120 laptops at headquarters and the regions since September 2006. Census has also conducted regular property management seminars since January 2007 to educate bureau personnel. The seminars emphasize that all bureau staff are responsible for managing accountable property and explain the roles of property management officials.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

This review was conducted in response to a September 14, 2006, memorandum from the Secretary of Commerce requesting that the Inspector General assess personal property management and policies at the Census Bureau. The objective of this review was to determine the effectiveness of internal controls over accountable property at the bureau. We did not seek to test the accuracy of Census's reported numbers of missing laptops and other accountable property. We examined Census reports on missing property but did not validate their accuracy.

We reviewed Census Bureau's policies and procedures and assessed internal controls over accountable personal property. Our emphasis was on the missing/lost/stolen laptops reported to Congress for the period 2001 to 2006. We identified the weaknesses that existed during the time the laptops went missing and the corrective actions that had been taken or were planned, and determined which weaknesses still remained. We examined internal controls such as physical control over vulnerable assets, segregation of duties, and execution, recording, and documentation of transactions and events.

We met with Census officials and their staff at their headquarters in Suitland, Maryland. These officials included the chief and assistant chief of ACSD, the chief of the Field Division, the chief information officer, the chief of Technologies Management Office, and the former chief of the Property Records and Transportation Management Branch of ACSD. We also interviewed the chief of Management Services of the Administration and Management Services Division by telephone. In addition, we discussed Department-wide efforts to strengthen internal controls over accountable personal property with the acting director of the Department's Office of Administrative Services and his staff who are taking the lead to improve property management across the Department.

We judgmentally selected 3 of the 12 regional offices (Dallas, Detroit, and New York) to observe the conduct of inventories and review internal property controls. We judgmentally selected 7 additional regional offices (Atlanta, Boston, Charlotte, Kansas City [Kansas], Philadelphia, Los Angeles, and Seattle) and discussed their inventory practices and results by telephone. We also observed inventory being conducted at Census headquarters, and examined previous inventory results.

We performed limited tests of computer-generated data for the audit. We did not verify the reliability of data included in APMS. Our tests of computer generated data were limited to ensuring that such data was sufficiently reliable to satisfy our audit objective. Specifically, we confirmed that selected property located at regional offices and maintained by field representatives was reflected on APMS property lists.

We reviewed compliance with applicable provisions of pertinent laws and regulations including the Federal Managers' Financial Integrity Act (FMFIA) of 1982; GAO *Standards for Internal Control in the Federal Government*; the Department of Commerce *Personal Property Management Manual* (which implements portions of the General

Services Administration's *Federal Management Regulation*<sup>1</sup> that pertain to the acquisition, management, utilization, and disposal of personal property); the Bureau of the Census *Policies and Procedures Manual*, Chapter K-9; and the Bureau of the Census *Regional Office Administrative Memorandum No. 2006-30*.

The review was conducted under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated August 31, 2006. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We performed our audit work from October 2006 to May 2007.

---

<sup>1</sup> Formerly the Federal Property Management Regulation

## **FINDINGS AND RECOMMENDATIONS**

### **Census Has More to Do to Improve and Strengthen Accountable Property Internal Controls**

When our audit began, corrective actions were already being initiated to address weaknesses in Census Bureau internal controls relating to personal property management. Our review found that while the bureau has made considerable progress in strengthening its internal controls, additional improvements are needed.

#### **A. Weaknesses in Personal Property Management**

From January 2001 until September 2006, the time period for which the bureau reported 672 lost/missing/stolen laptops, Census's personal property management suffered from a number of weaknesses, including inadequate attention to property management, inactive property boards of review, and inadequate procedures for the recovery of laptops.

We learned during our review that during this period, inadequate attention had been paid to property management. Although the Administrative and Customer Services Division was provided with physical inventories for headquarters divisions and regional offices, results were not consolidated or assessed to determine overall trends. Also, ACSD officials could not identify any Census reviews of missing property or initiatives to address problems in missing personal property conducted prior to the fall of 2006. Finally, despite the significant amount of accountable property managed by Census, much of which is geographically dispersed, the bureau does not have a full-time property management officer.

#### **Weaknesses in Census Bureau Personal Property Management**

##### **Inadequate Attention to Property Management**

- Inventory results were not consolidated and analyzed
- Census does not have a full-time property management officer

##### **Inactive Property Boards of Review**

- Property review boards were discontinued in the 1990s reportedly because it wasn't clear how they should be implemented

##### **Inadequate Procedures for Recovery of Laptops**

- Census officials stated that the recovery of lost/missing/stolen laptops had not been a priority
- Until media reports raised concerns in 2006, recovery procedures for regional offices had not been updated since June 2000

Another problem lay in the fact that Census had not conducted property boards of review for lost laptops from headquarters and regional offices since the 1990s and a backlog of cases to be reviewed had built up. The Census Bureau's Policies and Procedures Manual requires the property management officer to establish or convene a property board of review in all cases of missing, stolen, or neglected property. We asked specifically why the review boards had been discontinued. The chief of the ACSD told us they didn't know how to organize and run them, so they eventually just stopped holding the sessions.

A final problem area involved the adequacy of procedures for the recovery of laptops. Census officials told us during our review that recovering equipment had not been a priority because the bureau was more focused on performing surveys than finding lost or

stolen laptop computers. At the end of October 2006, Census implemented comprehensive procedures for the regional offices to use for recovering laptops. These procedures were more detailed than the previous ones, which did not address certain scenarios such as when regional offices are unable to contact field staff, or employee absence or death. Census could not provide us with any comprehensive headquarters laptop recovery procedures that were in existence prior to the Congressional and FOIA requests.

**B. Corrective actions already implemented or planned by Census**

Census has already implemented or planned a number of corrective actions to address its weaknesses in personal property management, including the following:

- **Emphasizing property management in performance plans.** Census is placing additional emphasis on personal property accountability by including property management as a critical element in the performance plans of property management officials. Specifically, the chief financial officer, property management officer, property accountability officer and property custodians were each assigned a weighted value for property management in their respective performance plans. For example, the property management officer was assigned a weighted value of 50 percent, and the property accountability officer was assigned a value of 25 percent.
- **Preparing to conduct Office of Management and Budget *Circular A-123* internal control review.** Census is planning to conduct an OMB *Circular A-123* internal control review of personal property, to be completed by September 30, 2007. The *A-123* review will provide guidance to managers on improving accountability and effectiveness of operations by establishing, assessing, correcting, and reporting on internal controls.
- **Reestablishing property boards of review.** Census has assembled four property boards of review to assess circumstances involving the loss, theft, damage, or destruction of accountable government property. By February 5, 2007, Census had reviewed and made determinations about 250 items. According to the assistant chief of ACSD, as of March 23, 2007, there was a backlog of about 400 unresolved missing, lost, or stolen laptops. We were also told there were approximately 400 missing, lost, or stolen non-laptop property items to be reviewed. (This backlog is the result of Census discontinuing property boards of review during the 1990s.)

**Corrective Actions to Address Weaknesses**

**Increased Attention to Property Management**

- Emphasis on personal property management in performance plans
- Preparations to conduct OMB Circular A-123 reviews

**Reactivated Property Boards of Review**

- Re-establish property boards of review

**Improved Management of Laptops and Recovery Procedures**

- Consolidate management of headquarters laptops
- Standardize laptop recovery procedures in the regional offices



- **Consolidating management of laptops.** The Local Area Network Technology Support Office within the Office of the Chief Information Officer has assumed ownership of current and new laptops assigned to personnel at headquarters and the processing center in Jeffersonville, Indiana. The number of laptops at Census headquarters has been reduced from about 1800 to a pool of 500 to 600 in a new short-term laptop loaner program. Laptops not needed for the loaner program will either be excessed or distributed for use in the regional offices. Reducing the number and restricting availability of laptops should reduce the risk of loss or theft.
- **Standardizing laptop recovery procedures in the regional offices.** We verified that Census has standardized and documented the laptop recovery process to address inconsistencies among the regional offices. The document *Return of Government Data Sensitive Property*, distributed in October 2006, outlines procedures the regional offices should follow to recover a laptop or other sensitive property when employees resign, retire, or are terminated.

Increased management attention and more aggressive recovery efforts have resulted in the recovery of about 120 laptops at headquarters and the regions since September 2006.

C. Additional improvements needed to strengthen internal controls

Despite the lengthy list of improvements Census has implemented in the past year, we believe a number of additional actions are necessary to ensure that progress continues and prevent property accountability problems from arising in the future.

**Transactions should be recorded promptly**

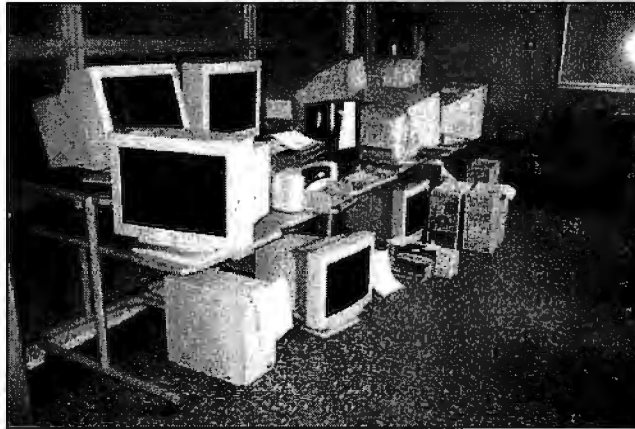
The Department of Commerce *Personal Property Management Manual*, dated March 1995, Section 4.702, requires all transactions affecting personal property accounts and records to be recorded on appropriate documents and posted promptly. This is essential to ensure the property management system shows current numbers and locations of property. Our review found that items were often not recorded in APMS for lengthy periods of time and as a result, the property management system was not always current. For example, we found:

- In 2005 in the Detroit regional office, it took 36 to 72 days to prepare receiving reports and 72 to 86 days to enter information into APMS for 3 direct shipments of 21 computers. At the time of our review, the person responsible no longer worked in the office, so we could not obtain an explanation for the delays.

We also found that 121 laptops that had been sold but later returned by the purchaser in August 2005 were not re-recorded in inventory until November 2006. We learned there had been a complete turnover in the information technology staff in late 2005. The new employees had not known what to do with the returned laptops.

During the Detroit regional office inventory, some items contained in APMS were identified as missing but were not. We were told that this problem resulted, in part, because the Detroit regional office transferred the equipment and submitted the documentation to Field Division in headquarters for approval. The Field Division did not always forward it to ACSD for input into APMS. As a result, APMS indicated that the Detroit regional office had property which had actually been transferred. The Dallas regional office had a similar issue. We were told that the Field Division now hand carries the approved regional office requests to ACSD for signature. ACSD then inputs the transaction into APMS.

- The [REDACTED] regional office had personal property scheduled to be excessed in August of 2005 that was still in the office more than a year later when it was time to conduct the November 2006 inventory. When it became evident that the personal property would be in the office at inventory time, it should have been recorded in APMS, but was not.



In November 2006, the Census Bureau's [REDACTED] regional office was continuing to store accountable property that had been scheduled to be excessed in August 2005.

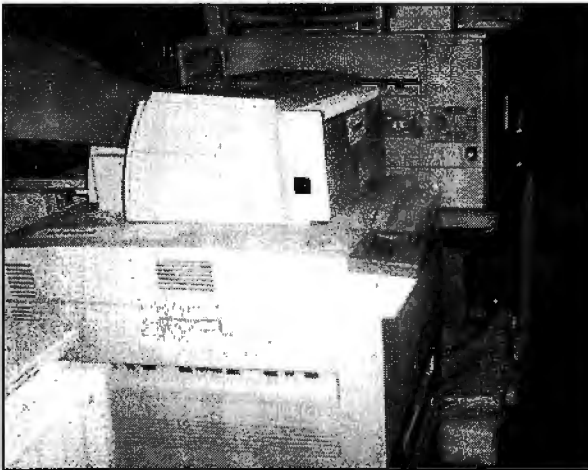
U.S. Census Bureau, [REDACTED] regional office

- Census continues to have backlogs of unprocessed CD-50s, the document used to transfer or surplus equipment. Census eliminated a backlog of approximately 3,000 outstanding CD-50s that were created before December 1, 2006. However, a recent move of certain Census divisions into the new headquarters building and the necessary adjustments to be made in APMS resulted in another backlog. As of March 7, 2007, there was a backlog of 450 CD-50s created since December 1, 2006.

### Execution of inventory procedures needs improvement

During the inventories of accountable property conducted in August 2006 at headquarters and between October 2006 and December 2006 at the regional offices, several problems emerged.

*Regional Office Administrative Memorandum No. 2006-30* was developed by the Census Bureau to provide guidance to regional offices on how best to conduct inventories. The memorandum stated that inventory teams should consist of three to four employees, including a "sweeper," the member of the inventory team responsible for ensuring that all items are scanned and marked as inventoried. However, we learned that the majority of the inventory at the Kansas City, Kansas, regional office was conducted by only one individual. We were told this happened because the office did not have enough staff to perform the inventory as required. We also were informed that inventories at the Seattle and Charlotte regional offices were conducted without a sweeper. The Detroit regional office used a sweeper some but not all of the time, and found during the inventory reconciliation process that it had missed items during its inventory.



U.S. Census Bureau Detroit regional office

Above, a storage room full of equipment no longer in use which has been identified as excess and is waiting to be removed from the premises at the Detroit regional office.

Census headquarters also encountered difficulties performing its inventory. The assistant chief of ACSD said the division did not foresee complications resulting from performing the inventory during the middle of the move to the new Census building and the associated transfers of equipment. In addition, a reorganization of four divisions into five took place during the inventory. Other factors also contributed to problems, such as some participants being unfamiliar with the inventory process, delays in sharing results with divisions, and staff shortages during the inventory.

In March 2007, Census discontinued the inventory of accountable property at headquarters that had been underway since August 2006. Bureau property management officials believed the difficulties encountered during the inventory had compromised the accuracy and completeness of the results.

A new headquarters inventory process was started in April 2007 with the goal to have 100 percent inventory and certification completed by May 31, 2007. The bureau incorporated lessons learned into this inventory. Inventories were done by floor as opposed to by division because the layout of office space made this most practical. Census assured us that future inventories will not take place during moves and transfers of property, and reorganizations will not take place during inventories. Census also noted

that it will hold training seminars to ensure all participants involved in the inventory process are adequately prepared at the start. Property liaisons will be assigned in each division to coordinate inventories with ACSD and assure all property accountability and transfer forms are completed. We believe these decisions should be documented in the bureau's policies and procedures to make sure future inventories are conducted effectively and efficiently.

**Property management policies and inventory procedures need to be consolidated**

The Census Bureau's existing guidance on conducting inventories, recovering laptops, and excessing equipment is contained in a number of different memorandums and directives that have been issued over several years. Census should consolidate all this information into one cohesive guiding document and routinely update it. It would also be advisable to post the consolidated guidance document on an internally accessible web site that is user-friendly and routinely updated.

**Property boards of review need to be convened as necessary to ensure that no future backlog of cases accumulates**

Census had not conducted property boards of review for lost laptops since the 1990s, resulting in a backlog of cases. Property boards of review (PBR) are assembled to assess the circumstances surrounding the loss, theft, damage or destruction of accountable property. As of February 5, 2007, Census faced a backlog of approximately 800 cases remaining before the property boards of review. In its September 24, 2007 response to our draft report, Census noted that it had addressed the backlog of cases needing review by convening six PBRs in fiscal year 2007. According to the property management officer, the recent PBRs eliminated the existing backlog of cases and new cases resulting from the bureau's April/May 2007 inventory were in the process of being reviewed. Census stated that it now convenes PBRs on an as-needed basis to review cases of property reported as lost, missing, or stolen. We believe that Census should be able to avoid the accumulation of a future backlog of cases by following such a process.

**Property management officer's responsibilities should be evaluated**

Unlike some other Commerce bureaus, Census does not have a dedicated or full-time property management officer. Census should evaluate the various responsibilities assigned to the individual who currently serves as the property management officer and determine whether to restructure this position and dedicate it solely to property management. The assistant chief of ACSD, who serves as Census's property management officer, told us he has spent about 95 percent of his time on property management issues since he assumed the position in September 2006. However, the current performance plan for the position of assistant division chief has only a 50 percent weighting allocated for the property management officer element and also lists conference and travel management services as other major duties.

#### D. Recommendations

We recommend that the Census Bureau director take appropriate action to ensure the following with respect to personal property management at the bureau:

- (1) Transactions are promptly recorded in APMS; all accountable property on hand at the time of inventory is recorded in APMS; the backlog of Personal Property Control forms (CD-50s) is eliminated; and equipment no longer in use is properly and promptly excessed.
- (2) Guidance on conducting inventories which emphasizes the importance of segregation of duties is issued.
- (3) Internal policies and procedures for handling accountable property are consolidated into a cohesive guiding document that is routinely updated and readily accessible.
- (4) Property boards of review are convened as necessary so that no future backlog of cases accumulates.
- (5) The current responsibilities of the property management officer are assessed to determine whether to create a full-time position solely dedicated to property management.

#### E. Census Response

On September 24, 2007, we received the Census Bureau response to our August 23, 2007 draft report. The Census Bureau agreed with four of the five recommendations contained in the draft report and stated that it had already taken or initiation actions to address those recommendations. Census disagreed with our draft recommendation that property value be taken into consideration for eliminating the backlog of property boards of review (PBR) cases, stating that value plays no role in determining the sensitive nature of a property item. Census noted that it convened six PBRs this fiscal year which eliminated the backlog and that the current procedure is to convene PBRs on an as-needed basis to review cases of property reported as lost, missing, or stolen.

#### F. OIG Comments

We believe that actions taken and planned are responsive to our recommendations. Also, we acknowledge the Census Bureau's commitment to address our findings and recommendations. After considering the Bureau's response, we modified our recommendation relating to property boards of review to reflect Census efforts to address the backlog of cases and remove property value as a consideration in convening PBRs.

APPENDIX I



UNITED STATES DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. Census Bureau  
Washington, DC 20233-0001  
OFFICE OF THE DIRECTOR

SEP 11 2007

MEMORANDUM FOR John M. Seeba  
Assistant Inspector General for Auditing

Through: Cynthia A. Glassman *et al for CAO*  
Under Secretary for Economic Affairs

From: Charles Louis Kincannon *[Signature]*  
Director

Subject: *Census Has Improved Accountability for Laptops and  
Other Personal Property, but Additional Improvements  
Are Needed*  
Draft Report No. IG-18387-1 (OA)

The attached is in response to your memorandum of August 23, 2007, requesting comments on the subject draft report. We appreciate the opportunity to review this report prior to publication.

Attachment

cc: US/EA

USCENSUSBUREAU  
Helping You Make Informed Decisions

www.census.gov

U.S. Census Bureau Comments on  
*Census Has Improved Accountability for Laptops and  
Other Personal Property, but Additional Improvements  
Are Needed*  
Draft Report No. IG-18387-1 (OA)  
September 2007

**Recommendations:**

*We recommend that the Census Bureau director take appropriate action to ensure the following with respect to personal property management at the bureau:*

1. *Transactions are promptly recorded in APMS; all accountable property on hand at the time of inventory is recorded in APMS; the backlog of Personal Property Control forms (CD-50s) is eliminated; and equipment no longer in use is properly and promptly excessed.*

**Census Bureau Comments:** We agree with this recommendation. We have already taken steps to improve the CD-50 process and eliminate backlogs.

2. *Guidance on conducting inventories which emphasizes the importance of segregation of duties is issued.*

**Census Bureau Comments:** We agree with this recommendation. This process is already in place. Census Bureau property officials used new and improved procedures to conduct our April/May 2007 100-percent inventory. We provided guidance to all Census Bureau property officials during our monthly Property Training Seminars and by employee broadcast messages. In addition, we have established a new line of communication between the Property Management Office and the Census Bureau's directorates and divisions. Directorate and Division Property Representatives receive all information regarding the inventory schedule and process in special meetings and in writing.

3. *Internal policies and procedures for handling accountable property are consolidated into a cohesive guiding document that is routinely updated and readily accessible.*

**Census Bureau Comments:** We agree with this recommendation. We are in the process of consolidating all policies and procedures for handling accountable property into a single location on the Census Bureau Intranet site.

4. *A realistic approach which takes property value into consideration is established for eliminating the backlog of property boards of review cases.*

**Census Bureau Comments:** We disagree with this recommendation. The problem with the backlog of property cases was not related to the value of the property. For example, we consider property "accountable" if it has a value of \$5,000 or greater. Yet, value plays no role in determining the "sensitive" nature of a property item, such as a Personal Computer (PC); although a lost, missing, or stolen PC would certainly be reviewed by a Property Board Review (PBR). The issue we faced with regards to PBRs was that they were not impaneled at all since the early 1990s. That created the backlog of cases needing review. We have since addressed that issue by convening six PBRs this fiscal year. The procedure that we now follow is to convene PBRs on an as-needed basis to review cases of property reported as lost, missing, or stolen. That process has worked well for us.

5. *The current responsibilities of the property management officer are assessed to determine whether to create a full-time position solely dedicated to property management.*

**Census Bureau Comments:** We agree with this recommendation. We have already begun to take steps to put this recommendation in place.